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From the " Modern Schools " Exhibition at the R.I.B.A.
Kindergarten, Northville Grade School, Michigan. Lyndon & Smith, Architects

JOURNAL OF THE
ROYAL INSTITUTE *of* BRITISH ARCHITECTS

VOL. 44. 3RD SERIES 16 OCTOBER 1937 No. 20

Journal

"Modern Schools" Exhibition

The "Modern Schools" Exhibition has been excellently timed to coincide with what seems to be a real stirring of interest in the subject. If it had come earlier it would have lacked the benefit of the publicity that has been given to school design ever since the *News Chronicle* competition, and would have preceded rather than coincided with the implementation of the Board of Education's own progressive policy which was launched by the publication of the now famous Pamphlet 107. As it is, the pervasive influence of campaigns of all sorts that have called attention to the state of the people, their health, wealth and happiness has, as it were, matured so that we can honestly hope that the exhibition now will be able to have the greatest possible effect. People now throughout the country are at last building schools and thinking about building them; they are looking everywhere for advice and precedents, and some are wondering if they can really dare to "be modern"; others are trying to relate the need for economy, open air, warmth in the winter, modern equipment, new educational theories with cosy old-fashioned architecture, and they will succeed perhaps. This exhibition is not, as Professor John Hilton warned the people at the opening ceremony, a collection of "cribs," there are no ready-made solutions, but the problem of each school must be worked out in relation to the whole gamut of local conditions by an architect. Of course we knew that, but none the less were pleased and flattered to hear it put across with all the authority of a professor and all the persuasiveness of a B.B.C. star. The exhibition is booked to visit at least twelve important cities in England during the coming year, and will almost certainly extend its tour after that. Local architects are now as always asked to watch for its arrival and to give whatever assistance they can.

The Henry Jarvis Hall was packed on Wednesday, 13 October, when Mr. H. W. Burchett [*A.*] gave an informal talk on "The Planning of Schools." Mr. Burchett's expert knowledge of his subject evoked the keenest attention in his audience, who subsequently bombarded him with questions for more than an hour. A full report of Mr. Burchett's lecture, together with the questions and his answers to them, will be published in the next number of the JOURNAL.

The Catalogue

Leaflets announcing the new Volume Catalogue of the Library are inserted in this number of the JOURNAL. They explain themselves, and members are asked to use the form attached to notify their wish to subscribe. Any claims that we may make that the catalogue represents marvellously good value for money will probably be accepted in a "sez you" attitude by all those members who on these occasions have no guineas to spend. Nevertheless, the catalogue is one of the most ambitious and sincere efforts that the Library has yet been enabled to make to improve its service to overseas and provincial members particularly. It provides every architect with by far the most complete architectural bibliography that has ever been published. It covers all sides of architecture, building science as widely and exactly as ancient history, and all for a guinea.

Registration

Steps will be taken on behalf of the Architects' Registration Council to reintroduce the Architects Registration Bill in Parliament during the first days of the new Session, which is expected to begin at the end of October. It will be recalled that the Bill, which passed through the House of Lords in the spring, only failed to secure the assent of the House of Commons owing to lack of Parliamentary time. The opposition, it may fairly be said, was restricted to a handful of members.

The object of this Bill is to restrict the use of the title "Architect" to Registered Architects. Under the Architects (Registration) Act, 1931, registration was merely permissive. Under Clause 2 any person now practising as an architect is allowed two years from the passing of the Bill in which to register. Future entrants to the profession will be required to pass one of the qualifying examinations approved by the Architects' Registration Council on the recommendation of the Board of Architectural Education set up under the Architects (Registration) Act, 1931. In addition to support by the R.I.B.A. and the 67 provincial associations allied to the Royal Institute the Bill is receiving support from the Faculty of Architects and Surveyors; the Architectural Association, London; the Association

of Architects, Surveyors and Technical Assistants ; the Association of Representatives of " Unattached " Architects ; the Incorporated Society of Auctioneers and Landed Property Agents ; the National Federation of Building Trades Employers ; the Executive Committee of the National Federation of Building Trades Operatives ; and the Council of the London Master Builders' Association. The following bodies have signified that they have no objection to the measure : The Chartered Surveyors' Institution ; the Institution of Civil Engineers ; and the Institution of Structural Engineers.

B.B.C. and Everyday Things

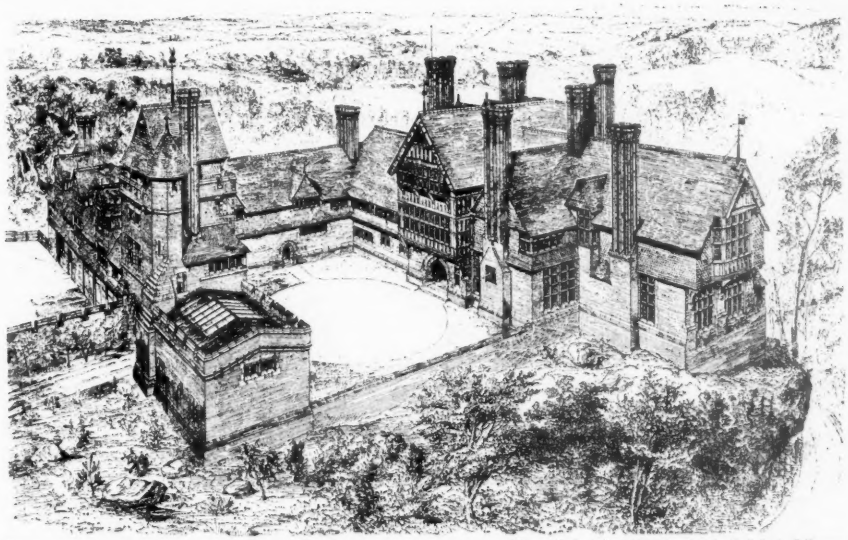
Every autumn the B.B.C. produces attractively " got up " booklets to advertise and describe the winter series of talks. Several of these booklets dealing with talks connected with art and architecture will be well known to many architects. The latest, on *Design in Everyday Things*,* is in every way one of the best we have seen. Its production is, as it should be, a model of what such a pamphlet can be made ; fresh and simple in design (the cover is by Raymond McGrath), well printed and excellently illustrated. All of which is very much to the point since the pamphlet is in its own way a first-rate example of the type of contemporary design which Mr. Anthony Bertram discusses in his short introduction to the talks which he is now giving on twelve Mondays before Christmas at 8 p.m. (The first was on 4 October.) Mr. Bertram is one of those cultured lay friends of architecture whose keen wit and clear-headed conception of architecture and industrial art generally are of inestimable value not only to the despised general public but also to the professional men whose work he discusses. We could say that this pamphlet is one of the most emphatic and best expressed pieces of propaganda for architects that has yet appeared, but it would perhaps be unjust to the wide importance of Mr. Bertram's theme to emphasise what is an incidental quality, however much it may be one that we as architects welcome and may desire to emphasise.

What more, it might be said, can anyone say on this subject that has not been said a hundred times already ? This question Mr. Bertram asks himself and answers it not only by what he says but the way he says it. More bold and honest than many of his precursors he does not pretend that the subject is a new one, indeed he starts by quotations from *Hints on Household Taste*, by Charles Eastlake, the first secretary of the R.I.B.A., who in the eighteen-sixties was analysing the abuses of popular taste in a way that is different from the way we do so now only because Eastlake's time and ideas were different. The subject is one that can never be argued out of court because industrial design, the design of everything from buildings to pots and pans and pamphlets, is a social art, fundamentally related to the ever-changing modes of life and thought that compose community life. All the old arguments are here, all the seemingly despairing agony of sensitive men to the crudity of mock old and mock modern, the realisation that without expecting every suburban villa and what is in it to be a work of art we should be justified in expecting at least orderly design. It is no use expecting this to come as the imposition of a cultured clique. The cultured clique have their responsibility to educate the public, but the inability of the cultured clique to impose their superior will does not mean that their opinion is a wrong one and that they are relieved from responsibility. Mr. Bertram is not one of those who so lack confidence that they tamely allow the belief that the lowest common denominator of taste is the best. What cultured people know and like is the outcome of their education and it is worth standing by. " It is simply not true," Mr. Bertram says, " that everyone is born with the capacity to judge design." Those who are trained to evaluate good design are impotent and can rage in their impotence endlessly unless they are prepared to give whole-hearted support to such means as now exist through the B.B.C., the D.I.A., the Council for Art and Industry and the R.I.B.A. Exhibition Committee to educate the public.

* *Design in Everyday Things*, by Anthony Bertram. Published by the B.B.C. 8d.

Rises in the Cost of Production of the Journal and New Publication Dates

As a result of the general rise in the cost of paper the R.I.B.A. is faced with a £300 rise in the cost of producing the Journal, which could only be avoided by a serious lowering of quality which, and we hope rightly, we have determined not to allow. This sudden addition to our budget is serious enough without an even greater increase due to the adoption by the printing trade of a forty-five hour week, and consequently a five-day week : a progressive move adopted at the instance of the trade unions, at which few are likely to cavil except in so far as they are consumers and have to put their hands in their pockets to pay for it. For reasons connected with the internal organisation of the firm of printers who print the Journal, into which it is not necessary to go here, we have been able to reduce the amount of the rise which we would otherwise have had to carry by agreeing to post the Journal on *Mondays* instead of, as hitherto, on Saturdays. This will mean that those members who previously received their Journals on Monday morning will in future receive them perhaps on Monday afternoon or, more likely, on Tuesday morning, and those on the outskirts of the van delivery area, which extends as far as Cambridge in the North and to the South Coast, will in future receive their Journals on either Tuesday or Wednesday. The publication date will in future be on Mondays and for the current session will be in each instance on the Monday following the date stated in the *Kalendar*. Although we are well aware that earlier delivery is desirable, as a result of this adjustment the inevitable rise due to the shorter working week is over £200 less than it would otherwise be.



Leyes Wood, Sussex, by R. Norman Shaw [*From the original drawing in the R.I.B.A. Library*

LATE VICTORIAN ARCHITECTURE: 1851-1900*

By HENRY-RUSSELL HITCHCOCK

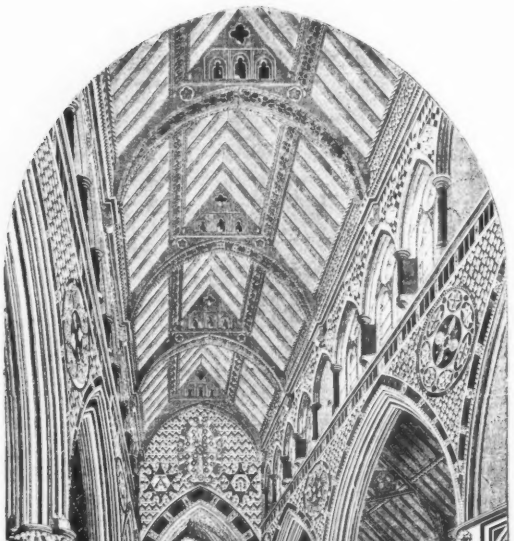
CRITICS AND ECCLESIOLOGISTS

Architectural critics are rarely famous; but to mention English nineteenth-century architecture would bring to mind almost anywhere in the world no architect but a critic—John Ruskin (1819-1900). John Ruskin began, of course, as a critic of painting, and his direct associations with architecture were very few. It is of interest to study his own house, Brantwood, Coniston, which he bought in 1870 and remodelled and enlarged in the following years. For Brantwood, Coniston, is the last thing one would expect to come from the mind of Ruskin. Except for an octagonal bow window at one corner, it is remarkably straightforward, almost conventional in design, styleless and devoid of ornament, a charming house which defies ordinary architectural analysis.

However, Brantwood had no influence, and in the end the influence of Ruskin's writings in England, and perhaps even more in America, was enormous, although it is doubtful whether at the very first he had much direct effect upon the profession. His first book on architecture, *The Seven Lamps*, was published in 1849, and in *The Seven Lamps* he not only developed some of the ideas of Pugin's writing on the essential functionalism of mediæval architecture, but he gave perhaps rather more emphasis to urging emulation of the rich colour effects, the elaborate sculptured detail of Italian mediæval architecture. It is true that at just this time in English architecture the Gothic revival, which under Pugin's leadership had been primarily nationalistic and rather rigidly tied to fourteenth-century forms, began to grow more eclectic, and that polychromy and richer sculptural decoration were increasingly used. It seems, however, unlikely that this was due to Ruskin so much as to certain architects.

For example, in the same year, 1849, Butterfield began to build the model church of the Camden Society, All Saints, Margaret Street, in which he made much use of polychromy and all sorts of rich figured embellishment. Indeed, Ruskin, in the new edition of *The Seven Lamps* of 1855, specifically praises All Saints. Ruskin's next architectural book, *The Stones of Venice*, was even more of a campaign document for richer, more sumptuous mediævalism in modern design. The first volume of this appeared in 1851. In 1853 his Edinburgh lecture carried into the stronghold of what remained of the English classical tradition a violent attack upon the simplicity and, as it seemed to Ruskin, barrenness of most English architecture; and this lecture was

* A lecture delivered at Dartington Hall, Totnes, Devon, on 6 July 1937 continued from the lecture "Early Victorian Architecture 1837-51" in R.I.B.A. JOURNAL, 11 September 1937.



[*From "The Builder,"* 1859

All Saints, Margaret Street, by Butterfield

very frequently republished. However, although the laymen were undoubtedly beginning to read Ruskin, not only in England but also in America, where his books were pirated within a year or two of publication, the profession found more interest in technical publications by men like Rickman and Sharpe and Brandon, who provided them with the fourteenth-century English detail which they wanted to imitate.

POLYCHROMATIC VIVACITY

A book by an architect, George Street, *Brick and Marble Architecture of the Middle Ages*, published in 1855, however, undoubtedly reached the profession. Richly illustrated with polychromatic motifs from Italian mediæval work, it provided a source book, one might say frankly a crib book, which was probably more influential directly upon architecture than anything Ruskin wrote. Indeed, Ruskin's support of the pre-Raphaelite painters was more significant in the early 'fifties.

Pugin, as a Roman Catholic, had been outside the Established Church, but within the Established Church the Camdenians and the Ecclesiologists had been very busy reviving ritualism, and hence, since mediæval ritualism required mediæval plans and church fitments, they were extremely effective, if somewhat muddled, propagandists of the Gothic revival; and if the more famous leaders of thought in the Oxford Movement—Keble, Newman and Pusey—were little interested in architecture, the High Church development as a whole was completely committed to the use of Gothic for churches. Hence the great importance of All Saints, Margaret Street, which was intended to be a Camdenian model church, and of which, indeed, Dr. Pusey laid the corner-stone.

Butterfield had earlier done work for the High Church party at St. Augustine's College, Canterbury, where he had enlarged and added to existing fourteenth-century buildings in a manner not very different from that of Pugin. But here at All Saints, Margaret Street, he broke loose with a profusion of polychromatic decoration of eclectic mediæval inspiration. The more vital architectural qualities of Butterfield were not as yet conspicuous. They can be better seen in London in the Church of St. Alban's, Holborn, 1858-61, where the striped brick of the wall screen gives a quite new character to the wall surface, and the very tall proportions and general sense of the significance of proportions is to be contrasted with the rather dull archæological tendencies of the preceding decade.

Not only in city churches, but also in the country, we find Butterfield setting a new, a more original and imaginative standard for the High Victorian Gothic revival, notably, for example, in the Baldersley Church and surrounding buildings near Thirsk, in Yorkshire, of 1856-58, while in such educational buildings as the schools at Rugby and at Keble College we have an even further development of his polychromatic vivacity with, perhaps, rather less distinction of proportion and interest of composition than in his churches. The fact that Butterfield is an architect of very great interest is no news to many people to-day, but it is extraordinarily difficult to illustrate the fact by any photographs or even drawings. But if Butterfield himself, despite the exuberance of his polychromy, is always a master, the Butterfieldian repertory of ornament and of proportion became rapidly turgid in the hands of imitators. Such a house as Eatington Park, of 1858-61, by Prichard, indicates for instance a sort of chaotic exuberance that is barely intelligible, and the surfaces are loaded with both moulded and coloured detail, which was easily subject to abuse, and perhaps nowhere worse than in America, where the sense of true mediæval work was really unknown, and it was too easy to imitate superficial originalities of English style without any inner discipline whatsoever. So that despite the fact that a Puginesque tradition continued in the mid-century, on

[*From Eastlake*

Eatington Park, Warwickshire, by J. Pritchard

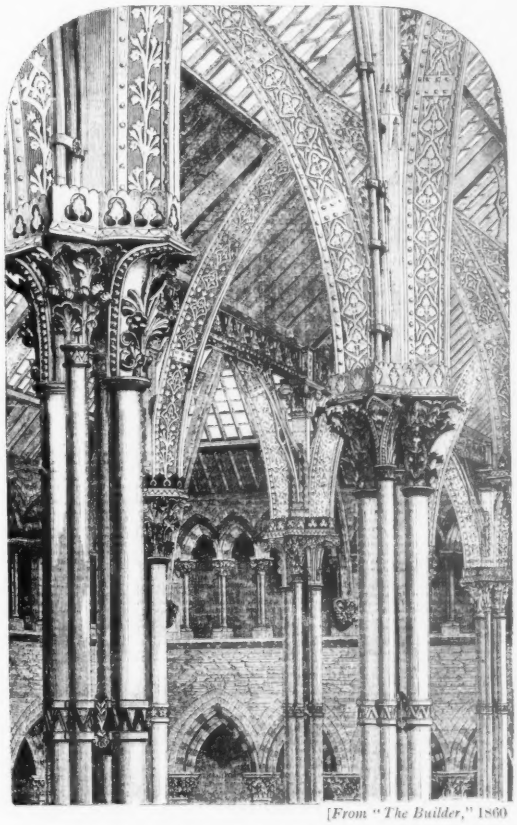
the whole the Gothic revival, now seeking its inspiration in the mediæval forms of Italy and also to some extent of France, was as eclectic, and from an English point of view as exotic, as the strange compilations of Assyrian and Hindu and Egyptian forms which Thomson was using in Scotland at the time. Yet even though the developments of the mid-century in the Gothic revival are so associated with Ruskin's writings that the Gothic of the period is sometimes called Ruskinian, it is probably rather more due to Street and to Butterfield that it took the form that it did.

RUSKIN'S INFLUENCE

Ruskin was only associated directly with the construction of one building, the Oxford University Museum, and with that he was associated more because of his interest in science, perhaps, than because of his interest in architecture. The architects were Deane and Woodward, and according to Ruskin the style was Veronese. This fact is not obvious to a modern eye. The building was begun in 1855 and completed in 1868, and is a not particularly interesting composition, but neither is it a particularly disagreeable or corrupt composition. Ruskin's influence appeared most definitely in the ornament, which was to be executed in the mediæval fashion as the more or less free expression of the craftsmen employed. O'Shea, an Irish carver, whom Deane and Woodward had already used on their work at Trinity College, Dublin, began to carve the capitals and the window jambs with a real vivacity and quality of direct cutting that does recall mediæval work, and is vastly superior to most ornamental architectural carving of the period. Alas, it did not meet with the approval of the dons, who found the beasts and foliage trivial, and the work was stopped before more than a few windows had been completed.

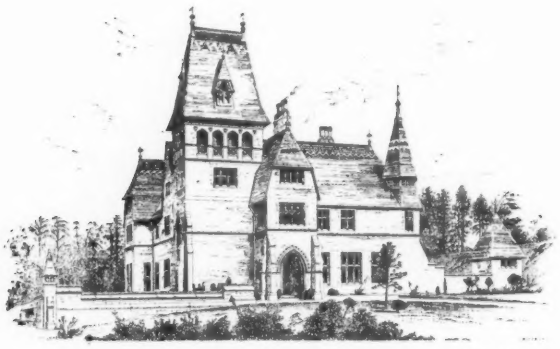
The other aspect of this building which is of interest is the court. Ruskin had violently objected to the Crystal Palace, and saw no good in it whatsoever, yet, curiously enough, the court of the Museum remains perhaps the only even partially successful attempt to combine the metal and glass architecture, which had reached its culmination in the Crystal Palace, with the æsthetic ambitions of the Gothic revival, and although these two elements are not altogether happily fused, the use of decorative metal scroll work in the spandrels and of wrought-iron leaves bolted on to form capitals suggests that, had this line been pursued further, England might have had work to compare with the very remarkable iron and glass buildings of the 'eighties and 'nineties on the Continent.

But Ruskin soon lost whatever faith he had had in the Gothic revival, and in 1859 abjured it all, including the "vile" colours at the Museum itself. Ruskin praised at this time only one Gothic revival building, which seems to modern eyes one of the duller examples of the mid-century—the Assize Courts in Manchester, by Waterhouse.



[*From "The Builder," 1860*

View in the Court, the Oxford University Museum, by Deane & Woodward



From Eastlake

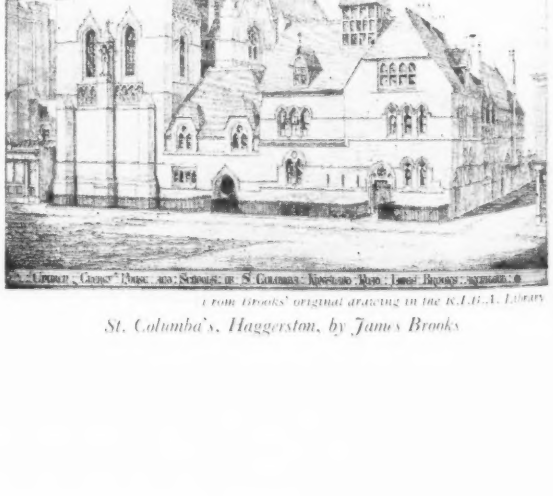
Quar Wood, Gloucestershire, by J. L. Pearson, 1857

Ruskin became Slade Professor at Oxford in 1869, and thenceforth to the end of his life was a sort of artistic oracle to the Anglo-Saxons. Strangely enough, however, Ruskin's ideas, although they stimulated men enormously, certainly led to no specific development. Brilliant as is Ruskin's thought, it was somewhat chaotic always, and although Ruskin generally abjured what were supposed to be the actual results of his doctrines, theoretically support could be found in his writings for almost any historic development except a return to the academic architecture of the previous 100 years.

Indeed, the Gothic revival itself was drawing to an end about 1870, and Eastlake's History, published in 1872, almost coincides with the disappearance of the Gothic revival as the dominant movement in English architecture. However, the 'fifties and the 'sixties were a period of enormous architectural production, and almost all the architectural production of serious æsthetic intention was produced under the ægis of revived mediævalism, but with a more and more eclectic tendency. Waterhouse, who was certainly not one of the greater architects of the period, but is perhaps for that reason the more typical, continued in the late 'sixties with the Gothic Manchester Town Hall, and the enormous Eaton Hall of the Duke of Westminster, in a kind of standard Victorian Gothic which is suave and plausible, but not very boldly original. Yet at Caius College in Cambridge in 1868 he had experimented with the François Premier, and in 1873 to 1880 he built the Natural History Museum at South Kensington, making use of Romanesque detail. Waterhouse, however, as I have said, was not of great intrinsic importance.

A far more interesting man was Pearson, who drew his inspiration rather from the French Gothic than from the Italian, and who was one of the few Gothic revival architects who used real vaulting whenever he could. Thus he was a particular predecessor of that kind of archæological revival of the High Gothic which crystallised in America and to some extent in England towards the end of the nineteenth century after the real Gothic revival was wholly over. The most interesting work of Pearson is that which is least what he believed himself best at. A house like Quar Wood, built in 1857, is an excellent example of the possibilities of free planning and free composition within the frame of mediæval precedent. The detail is simple and related to the general structure, the composition is ingeniously studied, and there is very little extraneous ornament. Pearson is, however, better known for his churches, of which the most conspicuous is Truro Cathedral, begun in 1880, and a large quite archæological development of the French twelfth century style. But this, of course, falls outside the High Victorian period.

In church architecture, after Butterfield, certainly one of the most ingenious men was Brooks, whose slum churches at Haggerston and Houndsditch have a very fine mass composition, simple detail, excellent proportions and an essentially non-archæological point of view. His country churches, such as that at Plaistow in Essex, of 1867, are equally good; but the leaders of the Gothic revival, the most æsthetically competent men within the Gothic revival, were somewhat restricted by the very theory of the Gothic revival to ecclesiastical architecture; and the really great commercial success of the mid-Victorian period, exceeding even that of Waterhouse, was made by Sir George Gilbert Scott (1811-78), whose churches are for the most part extremely dull, and whose buildings other than churches are generally considered by later taste to be examples of mid-Victorian horror.



From Brooks' original drawing in the R.I.B.A. Library

St. Columba's, Haggerston, by James Brooks

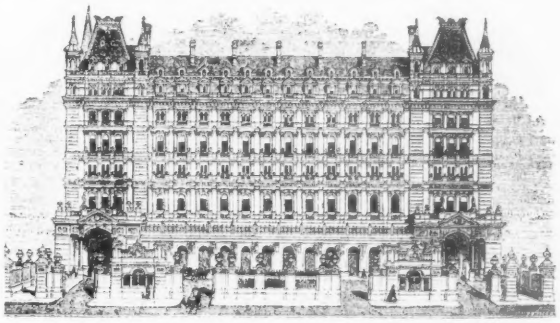
GILBERT SCOTT

The most famous of Gilbert Scott's work is, of course, the Albert Memorial, begun in 1863. It is interesting to compare Thomson's project for the Albert Memorial, which develops a sort of eclectic antique inspiration and geometrical sense of massing, with the executed work upon which Scott lavished all the resources of the contemporary tradition of polychromatic and sculptured ornament. The Albert Memorial is not, I think, really a horror, for above all one cannot help feeling that it is exactly what Albert would have wanted, and it will always have an appeal to vulgar taste, which is perhaps what such public monuments should have. Scott, among other things, competed for the Foreign Office in 1858 after, for some reason which I do not know, the general competition for rebuilding the Government offices in Whitehall in a mass fell through —perhaps because it was won by a Frenchman. But here Scott, one of the most triumphantly successful architects who ever lived, came up against an immovable obstacle in the person of Lord Palmerston, who had been momentarily out of office at the time the competition was won, but who returned to office in 1859, and would not accept Scott's very eclectic, typically Victorian Gothic designs—saying, after a lot of inconsequential argument, that Gothic buildings were (*a*) too well lighted ; (*b*) inadequately lighted ; and that the Foreign Office might be suitable for a Jesuit seminary, but that *he* was not going to work in it—and told Scott that he must either provide what Palmerston called a Palladian design or else give up the job. Scott swallowed his principles, and produced, with the assistance of M. D. Wyatt, what I suppose is a Palladian design. It is not very interesting from the Whitehall side, yet even so it is perhaps Scott's most successful building ; and towards the park, where he retained the picturesque composition with a curving mass and a tall tower from his Gothic scheme, the result is extremely interesting, suggesting a sort of large-scale version of the Italian villa type. Moreover, some of the ornamental carving on the Foreign Office, for instance, the pilaster capitals on the ground floor, succeeds in combining something of the mediæval vitality of the Gothic revival with the classical, the academic tradition in ornament in the broadest sense. Scott is reputed to have used up the rejected Gothic designs for the Foreign Office upon the Midland station at St. Pancras. He probably did use many of the detail drawings, but the massing is totally different. It is, of course, a horrible building, and the magnificent train shed is not Scott's work, but that of an associated engineer.

It is interesting to compare St. Pancras, where there is no relationship between the engineering and the frontal architecture, with King's Cross Station across the way, where, a bare fifteen years earlier, the architecture had been so successfully related to the quality of the metal and glass train sheds ; but if one is inclined to think that the Midland station is one of the great horrors of the mid-century to be charged against the Gothic revival, the Charing Cross Hotel and station by E. M. Barry serves at once to make one realise that what was left of the eclectic academic tradition was no more competent. E. M. Barry (1830-80) carried on from where his father had left off, with an extremely corrupt version of French Late Renaissance architecture —proportionless, confused, excessively ugly in materials. Indeed, this French Renaissance style, which received prestige from its adoption by Napoleon III for the new Louvre, was rather popular in the City in the mid-Victorian period. While the land-owning class and the Established Church favoured the Gothic revival, City men seem rather to have taken their cue from the splendours of Second Empire Paris. Cambridge Terrace, Regent's Park, is a case in point. Another conspicuous case in point are the houses at the Hyde Park Corner end of Grosvenor Place and those by Victoria Station, which were the work, apparently, of no particular architect, but of draughtsmen in the builder Cubitt's office who were sent to Paris to pick up what they could in the way of the latest style ideas, much as draughtsmen were sent in the late 'twenties to pick up the stylisms of the Paris Exposition of 1925.

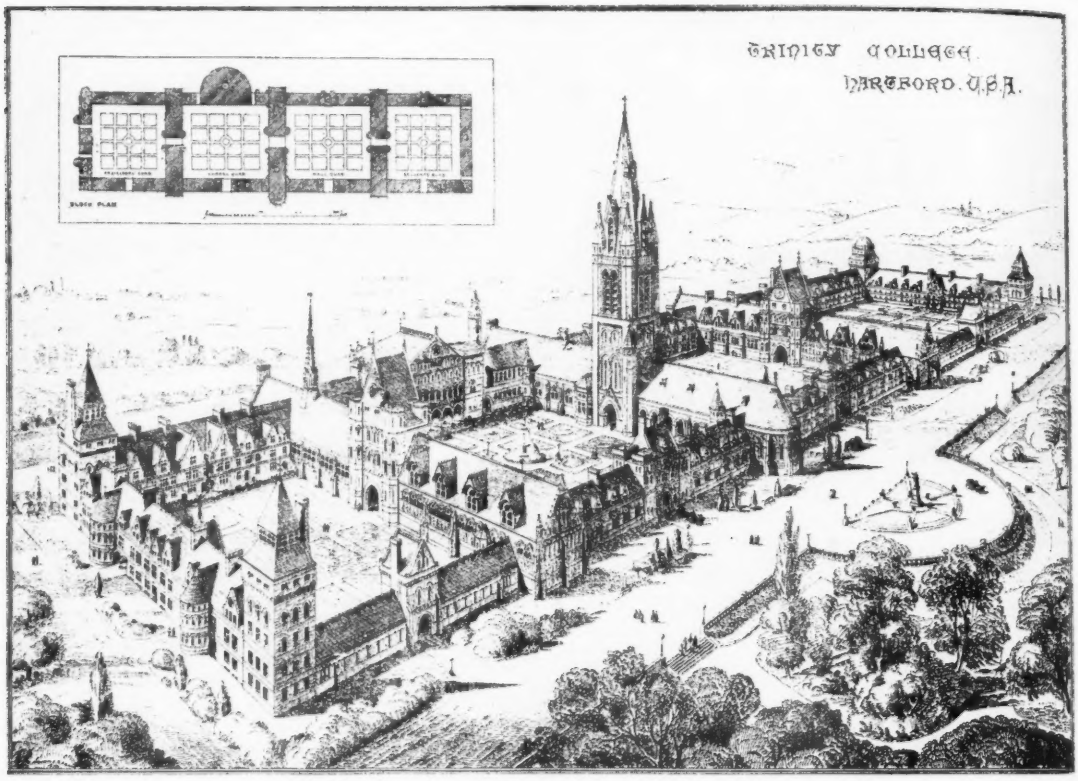
HORACE JONES'S GIDDYWAY

Fortunately there was not much of this sort of domestic architecture. In the main, the Barryesque tradition was maintained, but with increasing emphasis upon the individual house, and increasing loss of a sense of unity of the terrace or the crescent. The most active architect in this type of work was Horace Jones, the architect to the City, who built the Smithfield Market in an extremely giddy way which is certainly not Gothic, and which it would be to malign the French to call French. His best work is probably Marshall & Snelgrove's, which has a certain charm of delicate scale and, as we see it to-day, sand-blasted, a certain prettiness of colour. But in spite of the profusion of, broadly speaking, French-inspired Renaissance architecture, there were no



From the "Building News," 1864

Charing Cross Hotel and Station, by E. M. Barry



William Burges's design for Trinity College, Hartford, U.S.A.

very great men working in this vein, and it formed no consistent movement, no true æsthetic tradition like the Gothic revival, but rather, by its existence side by side with the Gothic revival, tended to complete the destruction of all stylistic sense in the lay mind.

STREET AND BURGES

Before we leave the High Victorian period there are two Gothic revival architects of great power and considerable ingenuity who should be mentioned. Street, whose *Brick and Marble Architecture* we have mentioned, was on the whole rather more inspired in his actual work by French mediæval precedent than by Italian. His churches, such as St. Philip and St. James in Oxford, of 1862, are powerfully massed, not over-decorated, remarkably clear in their expression of masonry structure, and fall among the worthiest models that the mid-nineteenth century provided. His slum churches, such as St. James the Less, off Vauxhall Bridge Road, compare in quality with those of Butterfield and Brooks. But, alas, his most conspicuous monument, the Law Courts in the Strand, though it has certain qualities of mass that are distinguished, is too late in the development of the Gothic revival to have much vitality. Although he won the commission in a competition held in 1866, the building was not begun until 1874, nor completed until after his death in 1882; so that although it is one of the largest buildings of the Gothic revival it really falls outside the period when the Gothic revival was the most living architectural tradition in England.

William Burges (1827-81), who was, even more than Street, inspired by French twelfth-century architecture, came also somewhat late in the Gothic revival. His cathedral of St. Finbarre in Cork is remarkably articulated, with particular emphasis upon the vaulting shafts even though the church is unvaulted. A small church in Stoke Newington shows a more creative use of these isolated wall shafts, where they are of cast iron and not of stone, and in Trinity College at Hartford, Connecticut, in America, he produced a project for a complete educational institution in a rather bold and heavy Early Gothic style which, as far as we can judge

from the small portion completed, would have been one of the real masterpieces of the mid-century.

However, although these men, Street and Burges particularly, combined in a remarkable way an erudite comprehension of what Gothic architecture had really been with very great professional competence, original taste and a remarkable sense of construction, they come at the end of the Gothic revival, and their pupils, particularly the pupils of Street, were destined to turn English architecture in a wholly different direction. This different direction is somewhat ambiguously labelled by the name of "Queen Anne," although the movement was not before the late 'seventies particularly related to the architecture of the Queen Anne period. However, since the term was already applied in its own day to this movement, it is as well, perhaps, to preserve it, though the nineteenth-century "Queen Anne" is really an outgrowth of the Gothic revival based, in part, upon Ruskinian ideas, and in part upon the sense, lost during the High Victorian Gothic period, that revivalism should preserve as far as possible a contact with the living traditions of the past, should be national rather than international in spirit, and also that in many fields of architecture the style of the High Gothic, the monumentality and the exuberance of bold polychromy and heavily scaled sculpture were conspicuously out of place. Above all, it represents a shift in the hierarchy of architectural types from the ecclesiastical to the domestic.

"QUEEN ANNE" ARCHITECTS

The first monument of the Queen Anne is perhaps as much the work of the client, William Morris, as of the architect, Philip Webb (1831-1915). Morris at Oxford had been all kinds of a mediævalist, perhaps particularly a literary one, and under the stimulus of Ruskin's writing decided, despite his early success with poetry, to become an architect, entering Street's office. But architecture proved to be not technically his field, and then he turned to painting under the influence of Rosetti, only ultimately to find his field of artistic expression in what he would have so disapproved of our calling the minor arts. But in 1859, when he built the Red House, he was as yet only a dilettante.

The Red House is very much simpler in plan than the characteristic Gothic revival houses of the mid-century, forming an L with the stair tower in the inner corner. It is also very much simpler in its architectural expression, attempting a revival not so much of architectural forms as of methods of craftsmanship. It was built of plain red brick with a red-tiled roof. It made use of very few Gothic forms; indeed, the very windows were sash windows—the only Queen Anne feature—and the segmental arch, which is the most natural form in brick, was used rather consistently. But the proportions were well studied, the relation to the landscape was vital, and the reaction towards simplicity and away from the turgid gorgeousness of the day so marked that it definitely opens a new period. Furthermore, it was the difficulty of obtaining appropriate furnishings for this house that sent Morris off on his new tack, forming with his friends Morris & Co. for the production of furniture and all sorts of house furnishings.

Webb remained one of the most conspicuous architects of the Queen Anne generation, but he was rather a crank; he took little work, accepted few commissions, and never, I think, again produced anything as fine as the Red House, which must be in large part the product of Morris's rather than of Webb's imagination. A large mansion of the 'eighties, such as Clouds, by Webb, shows his eclecticism, the combination of late mediæval and post-mediæval features very much simplified, with the emphasis upon varied materials, the avoidance of palatial scale, the preference for a cottage-like informality. But Webb, although he was much the most conscientious of his generation, and in some ways the most original, was not the most powerful influence upon the age, and the general direction that the Queen Anne was to take was first indicated in the work of two other men.

However, before we mention them there is one monument worth naming which was the first to be Queen Anne in the sense of reviving the English domestic architecture of the early eighteenth century—that is, Thackeray's own house, built in 1861, in Kensington Palace Gardens. Thackeray at this time was writing his novels based upon the early eighteenth century. It was natural for him to desire a setting appropriate to the period in which he was immersed. To modern eyes Thackeray's house does not look particularly Queen Anne, and, indeed, has very little interest other than ideological; but it indicates that the pall of suspicion with which the Early Victorian period had regarded the preceding century had lifted, and that the curious attitude which still dominates the Royal Commission

The Red House, Bexley Heath, by Philip Webb

on Historical Monuments, i.e., that anything built previous to the second quarter of the early eighteenth century is old and that anything built afterwards is not old, was already coming into existence. But Thackeray's house provided no stylistic prototype for imitation.

A very small building built in 1864, however, provided an amazingly wide repertory of architectural themes which were destined to be developed for almost a generation. This is the Regent's Park Lodge, by Nesfield (1835-88). Here we have a small-scale domestic architecture which, if anything, exaggerates smallness of scale, which depends for its effect upon brickwork, on tile-hanging, on turned oak, on bottle glass, on small-paned windows, on pargetery decorated core cornices, and in a final burst of whimsy, bits of broken coloured glass stuck in the plaster. The composition is picturesque and asymmetrical, hugging the earth, unimposing, quaint ; and this is the type which was destined, in a vast variety of forms, to take the place of the bold, monumental, overwhelming High Victorian Gothic.

In 1866 Nesfield built, in the gardens of Kensington Palace, a garden house which is actually Queen Anne in that it imitates the simplest vernacular of the late seventeenth and early eighteenth centuries, appropriately following the forms of the old palace, and extending clearly the mantle of respectability to English early classicistic forms. Hence the range of forms of prototype of the Queen Anne architects ran from the late Tudor through the simpler architecture of the early eighteenth century ; and the more one studies the Queen Anne the more it seems to have been a kind of revival of the English hybrid styles of the seventeenth century, carefully avoiding, however, the academic Palladianism of Jones and his school.

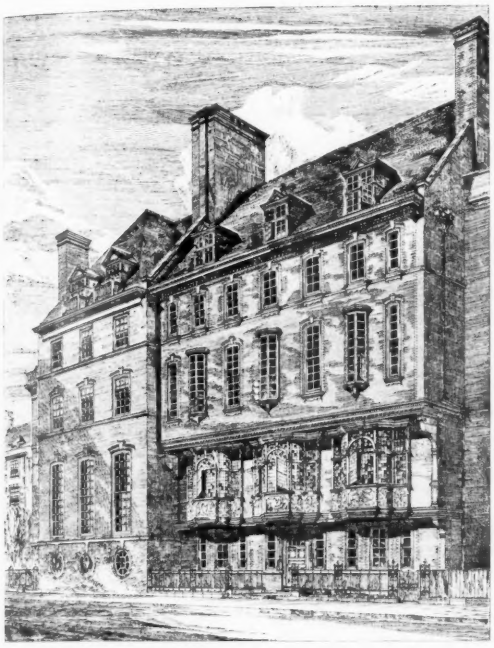
NORMAN SHAW

But the really successful architect of the Queen Anne, the man who was destined to hold the centre of the English architectural stage from the late 'sixties down to the war, was Norman Shaw (1831-1912), who had studied first with William Burn, whom you will remember as a country house architect of the Early Victorian period, specialising rather in Jacobean revivalism, and had then, like Webb and Nesfield, been in the office of Street. The earliest projects, and perhaps the most imaginative architectural conceptions, of Shaw were done under the inspiration of Street ; but in the late 'sixties he first found his own manner, particularly in the building of large country houses in the home counties. And while Nesfield seemed, after the Regent's Park Lodge and the Kensington Palace Gardens House, unable quite to co-ordinate his rather diverse tendencies, so that we find his Cloverley Hall predominantly late mediæval in style, but with some Japanese detail, and Kinmel Park almost Louis XIII, Shaw, inspired by the local tradition of the home counties in cottages and in manor houses, worked out a very pleasant domestic style, highly picturesque, melting into the landscape, and elaborately deployed in plan, with almost every room open on three sides, and with a vast repertory of small-scaled surface treatments with brick, with stone, with tile hanging, with half-timber, and so forth, which were not based on any high style of the past, but upon local traditions which had, indeed, often been maintained down into the early eighteenth century.

Such a house as Leyes Wood, sprawling around a court, illustrates the extreme freedom, indeed casualness, of Shaw's planning. Such a house as Pinner, with its rich combination of materials, indicates the etching-like sense of varied texture which Shaw possessed, and both in England and in America this sort of rambling rusticity has never wholly passed out of fashion, although it was perhaps when Shaw's work was published on the Continent by Muthesius that his historical function was completed. Then what was really casualness, indeed almost sloppiness in planning, and an intuitive sense of the picturesque in composition, seemed, to foreigners sunk in decadent academicism, the inspiration for functional free planning and for highly asymmetrical but still formal composition.

The Queen Anne movement, particularly as represented by the work of Shaw, was always more or less eclectic in inspiration, and it is a mistake to emphasise too great a progression from one type of design to another. The rambling, essentially Surrey Tudor style of the country houses was not given over when, very shortly, Shaw in urban buildings began to make use of more Renaissance detail and a considerably more rigid sort of composition. New Zealand Chambers, in Leadenhall Street, of 1873, is an effective example of the moderate rationalism of the Queen Anne applied to urban flats, with the strong brick supporting piers subdividing the façade vertically almost as in skyscraper construction, but with the windows between given the form of highly picturesque bays, their subdivisions organised in what is perhaps the most characteristic of all the Queen Anne motifs—an arch set in a field of square panels. This motif, it is perhaps worth recalling, derives from the Sparrow House at Ipswich, built in 1567 ; but the general character of the detail of New Zealand Chambers might, perhaps, be called rural Carolean, and seems to modern eyes extremely inappropriate to the underlying simple structural conception.

As Shaw advanced into the 'seventies, the rural mediæval features of his first manner drop away in favour of the simplified forms of the brick architecture of the later seventeenth century, and in such a house as Lowther Lodge, of 1874 (now the Royal Geographical Society), even the picturesque composition is somewhat solidified and organised, as is also the case with the excellent Luke Fildes and Mark Stone houses in the Melbury Road. With this phase of Shaw's work the term " Queen Anne " becomes, at last, quite appropriate. Much the same sort of cut and rubbed brick



Swan House, Chelsea Embankment, by R. Norman Shaw, 1877

detail of late Stuart hybrid inspiration provides the vocabulary for the design of a large block of flats, the Albert Hall Mansions (1880), and at this time many row houses in Kensington show the continued virtuosity of Shaw's pencil in brick and terracotta. Alas, although these houses are very ingenious in plan and remarkably well lighted, their high ornamented gables, their bay windows and their excessively rich detail provide a most unfortunate contrast to the row houses organised into consistent blocks of the Early Victorian period, and despite the validity of Shaw's finest individual works the Queen Anne period probably produced the least satisfactory urban architecture that London has ever known.

But Shaw's development from the mediæval and the excessively picturesque towards later English Renaissance forms, and a certain discipline of composition, continued, and in the Old Swan House in Chelsea of 1877 we have a far finer city house than any of those in Kensington, now symmetrical in composition, but including the characteristic Queen Anne bay windows derived from those of the Sparrow House in Ipswich. It is worth pointing out that the projection of the second storey above these bay windows is made possible by the use of metal beams: but where, in the early nineteenth century, the use of metal is directly expressed in architecture, now, in the second half of the century, it is wholly masked behind the features of traditional construction.

From 1877 to 1880 Shaw was working on one of the first of the garden suburbs, destined to prove both the general and in many cases the specific inspiration of the great majority of English suburban architecture since that time. The individual houses at Bedford Park are usually very well planned, and the varied, somewhat eclectic traditionalism of the detail is consistently inventive; but unfortunately the many motifs of detached villa architecture which Shaw herein produced became the prototypes for generation after generation of speculative builders, until the very originals seem, in that respect, to be vulgarised by the millions of cheap imitations.

In the middle of the nineteenth century churches received a remarkably large part of English architectural attention, but with the Queen Anne the centre of English architecture swung back to residence work. Churches, however, continued to be built, now predominantly of either archæological or stylised Perpendicular character, but sometimes with eclectic Queen Anne detail, as in the case of the rather Laudian church by Shaw at Bedford Park. More characteristic of Shaw's churches is that at Leek in Staffordshire, of 1877, with its broad, low proportions, suave restraint and Perpendicular detail, which, along with the more archæological Late Gothic churches of Bodley and Garner, of which St. Mary's, Clumber, is an excellent example of 1886-89, provided the prototype for most of the church building not only in England but also in America from the end of the nineteenth century down almost to to-day. Sedding's Holy Trinity, Chelsea, of 1889, with its broad stylised Perpendicular forms and Renaissance fittings, was very influential, but a better example of this period is the younger Scott's church in Kennington, which is more ecclesiastical and less domestic in character than Shaw's churches.

The most conspicuous ecclesiastical monument of this period, however, is Bentley's Roman Catholic Cathedral in Westminster (1895-1903), in which the eclecticism of the Queen Anne takes the curious form of a mixture of Byzantine structural methods and Italianate mediæval and Renaissance detail. The interior, its stock bricks fortunately still mostly uncovered by mosaics, has something of the grandeur and straightforwardness of mid-nineteenth-century railroad engineering works in stock brick, but the exterior has a Butterfieldian violence of polychromy and fusion of small-scale detail which, despite frequent ingenuity and originality of compilation, is chiefly confusing and irritating.

But in the confused amalgam of Queen Anne, mediæval inspiration was continually losing ground to Renaissance inspiration in the last quarter of the century, and by 1895 Shaw at Bryanston, in Dorset, produced a large, wholly symmetrical and quite academically detailed country house in the spirit of the more

Collingham Gardens, London, S.W., by Ernest George and Peto, from drawing by Ernest George

formal architecture of the age of Queen Anne. So that the Queen Anne ended with an academic and monumental phase which became the basis, in England, of an early twentieth-century Georgian revival parallel to the academic developments in America, which began in the mid-'eighties with the mature work of McKim, Mead and White.

The Queen Anne, as such, was most vigorous in the 'eighties, and emphasis upon Shaw should not lead one to neglect the interest of such work as George and Peto's houses in Collingham Gardens, or such an amazing piece of stylistic eclecticism as Collcutt's Imperial Institute. But in the main the Queen Anne was not a valid urban style, and for the most part its buildings in London have not worn well. The last important and typical product of Queen Anne development is the early work of Lutyens. His Deanery Garden, Sonning, of 1900, is almost a return to the basically traditional forms of home counties tradition of the Red House, practically without applied ornamentation, but with the plan more compact and to some extent symmetrically organised. Unfortunately, Lutyens, whose first works seemed to derive from the happiest early Queen Anne tradition, shifted very soon to academic Palladianism with the building of Heathcote, Ilkley, in 1906. Thus the Queen Anne, in its main development, leads automatically into the academic revivalism of the early twentieth century, and it must seem to us to-day the basis upon which most reactionary doctrines in the modern English architectural situation are founded.

THE LAST TWENTY YEARS, THE LINK WITH MODERNISM

But there was, in the late 'eighties and 'nineties, a brief interlude in which the more rational and the more imaginative and the more original elements of the Queen Anne were developed by a considerable group of architects, some of them, like Baillie-Scott or Smith and Brewer, of interest for their simplification of the eclectic traditionalism of the Queen Anne, others of them, such as Macmurdo, Townsend, and above all Voysey and Mackintosh, men of far greater creative force. Townsend's Whitechapel Art Gallery, of 1897-99, has a bold composition in which the basic geometric forms are emphasised, very few traditional elements other than Webb-like mouldings and ornament in the manner of Morris's and Walter Crane's wallpapers and book decorations. Townsend's is not a wholly integrated style, but it was adventurous, and in the Horniman Museum in Dulwich in Lordship Lane capable of drastic stylisations, recalling the European Art Nouveau.

Voysey is a more important figure. His masterpiece is, perhaps, Broadleys on Lake Windermere. The plan recalls a little the plan of the Red House, but is more clearly organised and better orientated. The continuity of the roof lines, the avoidance of ornamental detail, and the boldness of such features as the plain stone mullioned, curving bay windows towards the lake give it nearly as positive an æsthetic modernism as the epoch making contemporary houses of Frank Lloyd Wright in America.

But more powerful even than the work of Voysey in suggesting that at long last the historicism of the nineteenth century could be discarded, and that out of new methods of construction and a more direct approach to the problems of architectural design a new architecture might arise in the twentieth century, was the work of Mackintosh in Glasgow. Unfortunately, Mackintosh's *œuvre* is very limited, and although his influence on the Continent was very great indeed, because of the work he did in various expositions, apparently he had almost no influence or following in the British Isles. His true significance has, perhaps, only been appreciated within the last few years, when the influence he sent forth like light to the Continent has been reflected back again in the form of what we to-day recognise as modern architecture.

The few houses by Mackintosh are not his most significant work. His significance is concentrated almost entirely in one monument, the Glasgow School of Art, for the design of which he won a competition held in

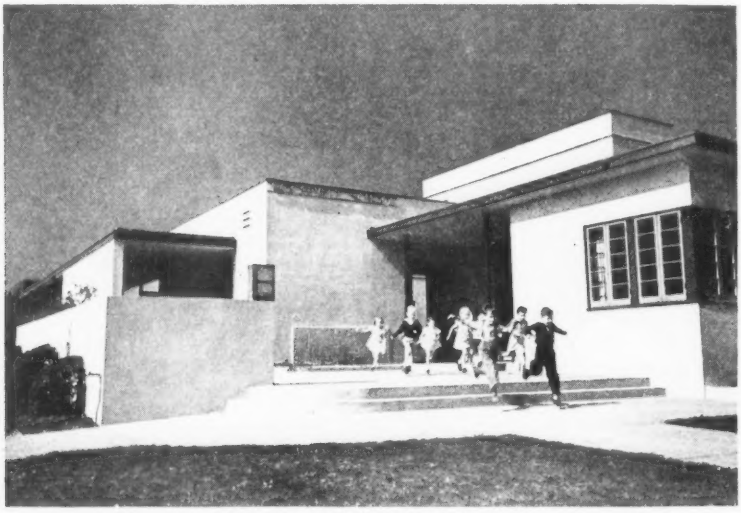
[Country Life photo

Deanery Garden, Sonning, by Edwin Lutyens

1893, and of which he built the major portion, the North Wing, 1897-99, adding in 1907-09 the West End. Of the two wings the later is perhaps the more striking, with its bold vertical lines, imaginative plasticity of form and fully original proportions; but the virtuosity of this portion of the building seems, in the mid-twentieth century, to belong too much to the extremes of the Art Nouveau period, and our admiration to-day must go more particularly to the earlier wing, with its enormous studio windows under visible ferro-concrete lintels, its clear, almost industrial organisation of parts and its more serene and classical proportions. So bold was Mackintosh's step into the future that at first sight his connection with the Queen Anne is difficult to unravel, but if one concentrates upon the entrance motif one sees clearly the remains of the freer and more structural type of semi-traditional design of Webb or Townsend. Indeed, this relic of what had been most original in the very immediate past is somewhat awkwardly associated with the complete rationalism of the rest of the façade, with which there is hardly anything to compare in English architecture since the engineering achievements of the mid-century.

For all the rather special character of English architectural development during the nineteenth century, for all its almost incidental effect upon developments elsewhere, England's contribution during this period to the architecture of the world remains of amazing importance. A century which opened with the work of Soane and closed with that of Mackintosh must be, to all countries in the twentieth century, worthy of detailed study; while, of course, of all the monuments of the nineteenth century erected anywhere in the world, none has seemed to the mid-twentieth century, both historically and intrinsically, of the importance, or indeed perhaps of the beauty, of the Crystal Palace, of which the first really worthy successor was Mackintosh's Glasgow School of Art.

Broadleys, Windermere, by C. F. A. Voysey



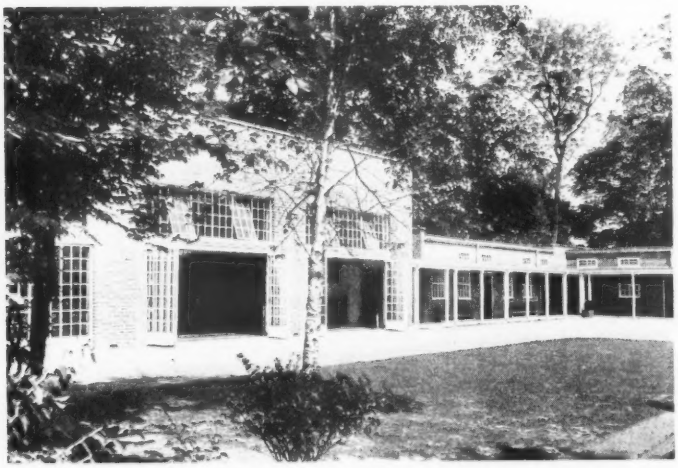
Roosevelt Elementary School, Santa Monica, California, by Marsh, Smith & Powell

THE "MODERN SCHOOLS" EXHIBITION

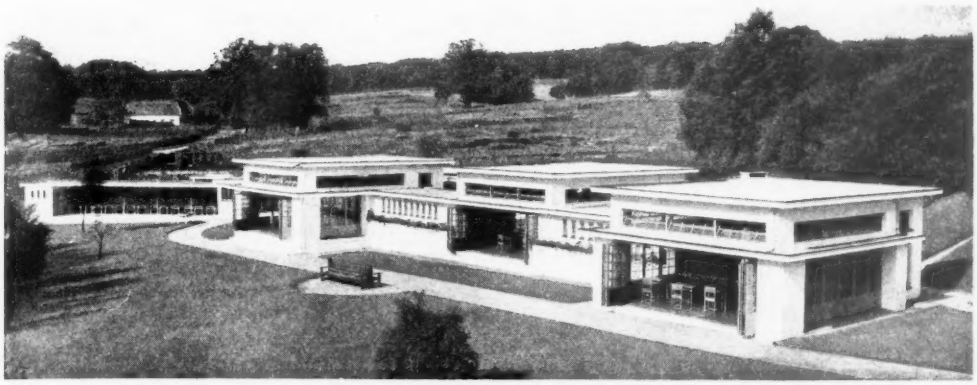
On Tuesday, 12 October, Professor John Hilton opened the "Modern Schools" Exhibition at the R.I.B.A. The Exhibition, which is one of the regular series organised by the R.I.B.A. Exhibition Sub-Committee, aims at showing the newest ideas in the planning, equipment and design of school buildings in connection with the Government's new drive to modernise the State school establishments of this country. It has received the approval and support of H.M. Board of Education. The provincial tour is already booked until 1938.

At the opening ceremony, the President, Mr. H. S Goodhart-Rendel, in welcoming Professor Hilton, described the scope and aims of the Exhibition. Professor Hilton said that it was almost an ideal time to hold such an exhibition. Not only were existing out-of-date elementary schools to be modernised (he had himself begun his education in a "hard, harsh" Council School building) but a great many new ones were to be built. School authorities and teachers were anxious that these new schools should be really beautiful and convenient; the Exhibition showed what kind of schools they might have in the immediate future. But the responsibility for the pace at which modernisation took place really rested on the general public who were parents and ratepayers.

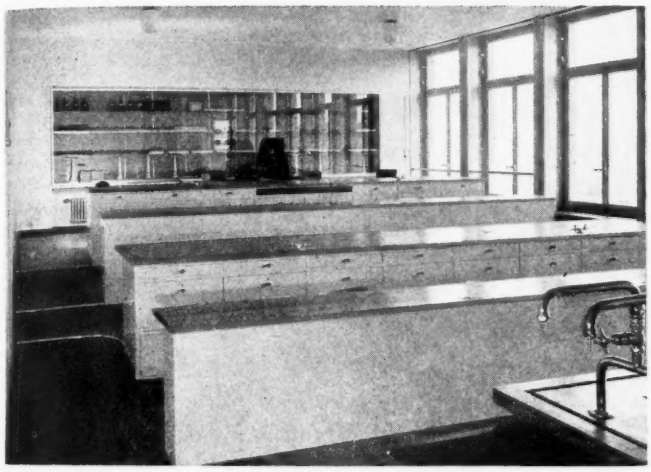
He realised that school architecture was becoming highly specialised. He saw in this the difficulty of making the general public and those representing the general public realise that if they wanted a job done well they must get a man who was technically competent to do it. Many leading local authorities naturally recognised this fact

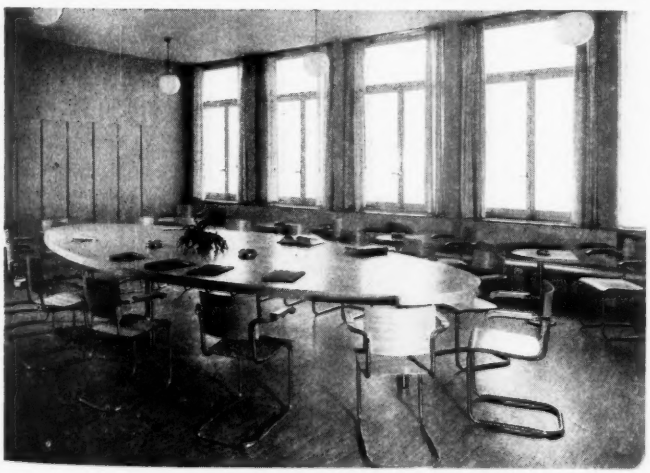


Welwyn Garden City High School, by H. T. B. Barnard [F.]



Open Air School, Arnhem, Holland, by H. B. van Broekhuizen

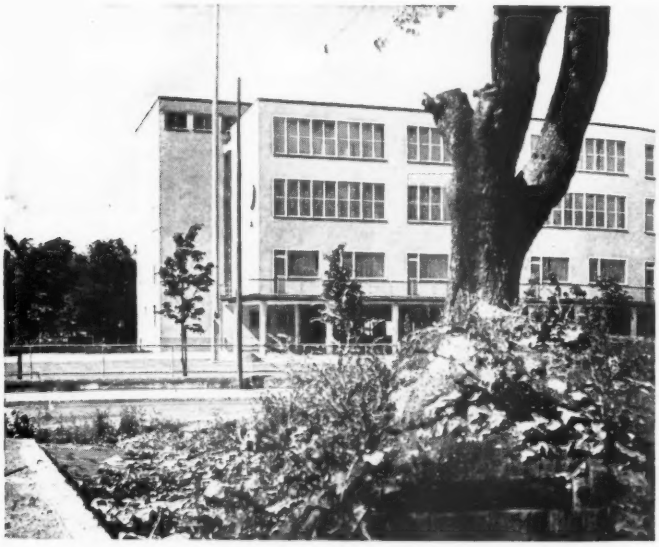




and had set up architectural staffs under the leadership of fully qualified architects or employed consulting architects who were experienced in school design. There were, unfortunately, other less progressive local authorities who thought that a good school could be designed by an unqualified assistant in the office of a municipal engineer or surveyor. There was also the temptation for that unqualified man to visit such an Exhibition as this and to make what, in schoolboy parlance, was called a "crib." A "crib" was something that had already been done on perfect lines for its own purpose and if used again was always second rate, and he would like to do all he could to discourage this practice in school building. He hoped that members of municipalities visiting the Exhibition would not say "This is the school we want, now we will copy it," but see the quality of the work, understand it and say "What is the name of the architect?"

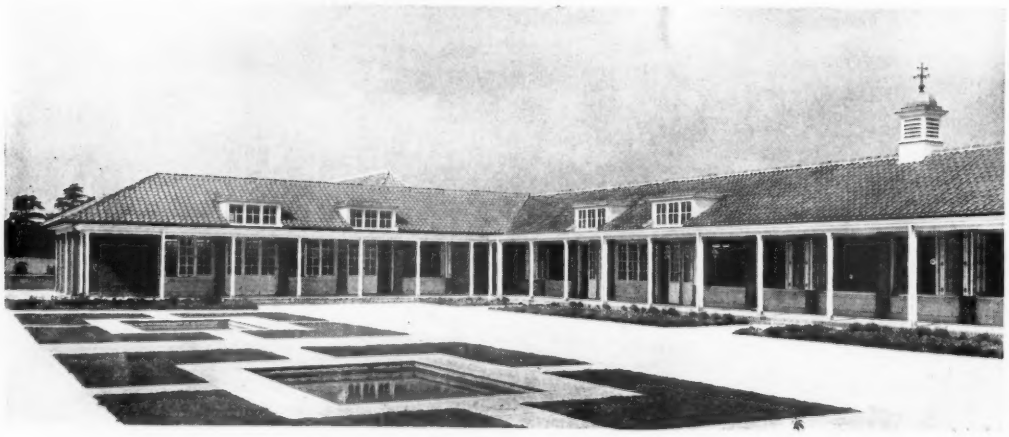
He thought that many schools to-day were not so good as they might be. Each one should have the maximum of utility value for every pound spent, coupled with the maximum of convenience and the maximum of visual delight. What was needed was more pioneering in school design. This meant not only getting a pioneer to do creative work on a particular site but also giving him full responsibility and acknowledging that responsibility. It was only by employing properly qualified architects on fair terms that they

Left and above: School at Zurich-Seebach, Switzerland, by Dr. Roland Rohn

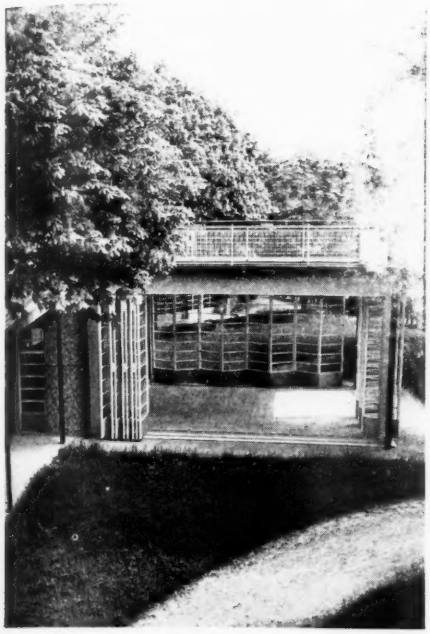


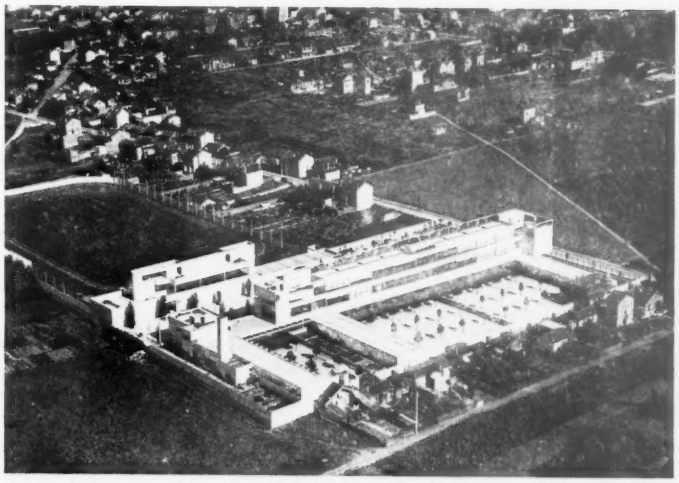
Top left: Arab Trade School, Haifa, by Holliday and Hubbard [F. & A.]. Left centre: Higher Girls' School, Stockholm, by Ahrbon and Zindahl. Above: Hollywood High School, U.S.A., by Marsh, Smith & Powell. Below: Summer House of the Deptford Nursery School, Wrotham, Kent, by H. T. B. Barnard [F.]

would get schools of the quality they needed and that they ought to have and could have.

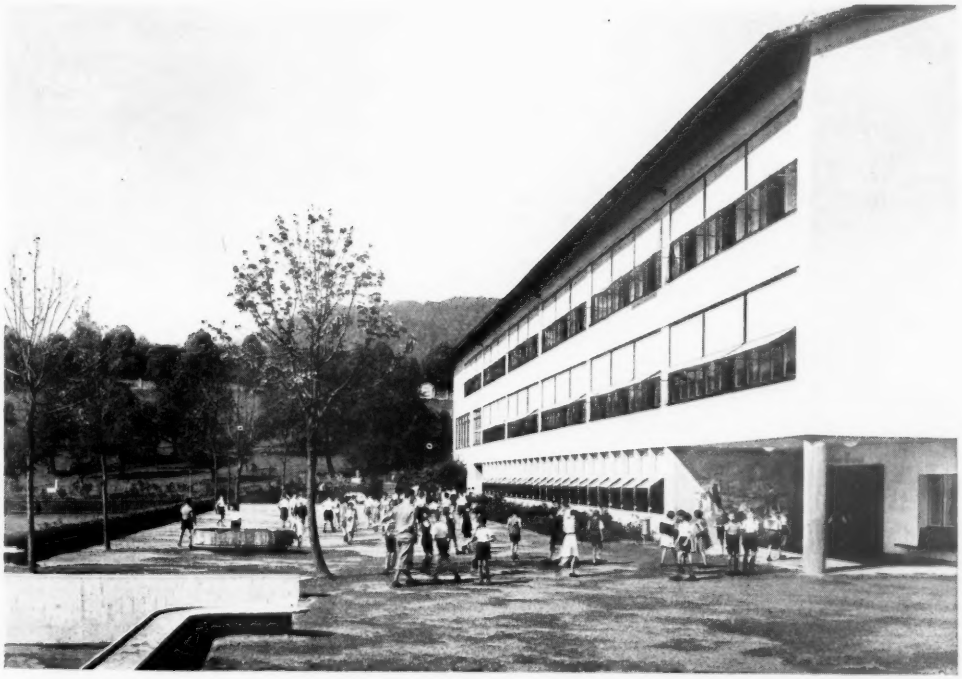


In proposing a vote of thanks to Professor Hilton, Mr. A. W. Kenyon, Chairman of the Exhibition Sub-Committee, described the scope of the R.I.B.A. Exhibition system, and made the interesting announcement that during last year the four current R.I.B.A. Exhibitions had been visited by a total of 182,000 persons.





Left: A classroom of the Open Air School at Suresnes, France, by Beaudouin and Lods. Above: Group Scholaire, Villejuif, Paris, by Andre Lurcat, Pierre Pinsard and Marcel Roux. Below: School at Zurich-Manegg by Dr. Roland Rohn



STANDARDS OF ADEQUACY AS TO THE ACCESS OF NATURAL LIGHT TO HABITABLE BUILDINGS

Prefatory Note by the Science Standing Committee

The following memorandum was prepared by Mr. P. J. Waldram at the request of a Joint Committee on Health and Comfort Conditions in Housing set up by the London School of Hygiene and Tropical Medicine, on which the R.I.B.A. is represented. It was considered by this Committee and forwarded direct to the Minister of Health. A copy was subsequently sent to the R.I.B.A. in common with other bodies represented on this Joint Committee, with a request that it should be brought to the notice of members in order that any comments on the memorandum might be forwarded by the R.I.B.A. to the Minister of Health.

The document states that " The Town Planning Act carries out the long overdue reform of granting immediate rights not only of light, but also of air, in perpetuity, to the community as a whole." In certain individual cases prescriptive rights have existed, and it has been possible by legal means to obtain compensation for loss of such rights. However, a complainant has always been at liberty to accept financial compensation, so that the right of light has not necessarily been perpetuated for future occupants of the building in question.

Under the Town and Country Planning Act, 1932, local authorities have further powers to prepare and enforce bye-laws prohibiting the obstruction of light by new buildings, both to existing and to hypothetical future buildings. This is a great advance, and it will be of the utmost importance to architects that bye-laws prepared under this section of the Town Planning Act should be as elastic as possible and entirely free from anomalies.

The traditional method of defining obstruction to light has been in terms of the ratio of the height of the obstructing building to its distance from the obstructed building, i.e., as an angle of obstruction. This method may be satisfactory in many cases, but it may also lead to anomalies and serious injustices, first, because it is a geometrical error to suppose that the angle alone is at any time sufficient to define the degree of obstruction, and, secondly and principally, because the method takes no account of light which may be available around the sides of a tall, narrow obstruction.

The document points out that in the daylight factor there is now available an internationally agreed criterion for the consideration of daylight illumination within buildings, and that, moreover, there is international agreement as to the limiting value of the daylight factor which represents inadequate illumination for clerical purposes. Making use of the agreed method and standard, the document proceeds to evolve a method of legislating for obstruction to natural light which is free from any of the anomalies liable to occur where the angle of obstruction rule is enforced.

The method proposed is, however, somewhat elaborate, and it is not suggested that those portions of the Act relating to daylight should be operated solely under this exact method. The suggestion is that in general angles of obstruction will be used, but that alternative methods should be included as permissive or available in cases where the angle of obstruction rule might cause injustice.

The exact method calls, strictly, for the plotting of daylight factor contours, which is at best cumbersome and lengthy and requires a certain amount of technical skill. Though there is nothing particularly abstruse in the plotting of contours it is, nevertheless, a practice which the architect is not likely to adopt as a routine procedure and which would in general call for the assistance of a specialist. However, the document points out that in the majority of cases it will be sufficiently accurate, in the place of a daylight factor contour, to plot a " no-sky " line, i.e., the line which divides the working plane of a room into two parts from one of which the sky is visible while from the other part no sky can be directly seen. This is a much simpler process which the architect would generally have no difficulty in applying.

The exact method developed in the memorandum calls also for a definition of reasonable obstruction under various conditions and also for a definition of reasonable fenestration. Certain figures defining obstructions are used in the memorandum, and a drawing illustrating reasonable fenestration is also included. It is to be emphasised, however, that these are put forward only as illustrative of the method, and they are not in any sense suggestions intended to be representative of the opinion of the R.I.B.A., or intended to be submitted to the Minister of Health as such.

The document has been considered by a sub-committee appointed by the Science Standing Committee in conjunction with Mr. Waldram, and the committee are of the opinion that it is important that town planning bye-laws should include some form of clause in addition to limitations by angles of obstruction, and they are of the opinion that the proposals put forward in this document form a valuable basis for an alternative method of legislation. Members are urged to consider the document and to submit any comments they may have, without delay, in order that conclusions representing the considered opinion of the Institute may be submitted to the Minister of Health.

MODERN METHODS OF MEASURING AND PREDETERMINING DAYLIGHT

By PERCY J. WALDRAM, F.S.I. [L.]

In consideration of adequate natural illumination of interiors of buildings it is necessary to disregard sunshine except as a fortuitous amenity.

When the sky is overcast, even by light cloud, it is impossible to determine the position of the sun either in bearing or altitude by any difference in the brightness of a hemisphere uniformly grey. Under these conditions, which obtain in this country and more or less over the whole Temperate Zone for long periods in autumn, winter and spring, and over any wet or dull day in summer, even a window facing south has no advantage at all as regards light over one facing north.

In framing any rules as to fenestration and/or permissible obstruction intended to secure any given degree of reasonable amenity as to natural illumination, it is impossible to disregard those periods of grey or wet weather, frequent and persistent in this country and more or less material in all countries, during which reasonable people expect to be able to carry on ordinary indoor life and work without artificial light.

The diffusing capacity of grey cloud which will obscure the position of the sun is such that on grey days the whole hemisphere of sky is for all practical purposes equally bright all over, at all bearings and from horizon to zenith. In consequence, the illumination to be derived from it remains practically constant from sunrise to noon and from noon to sunset, irrespective of the altitude of the sun, and without any of the steep and large rise and fall characteristic of the illumination from more or less cloudless sky.

The variations in light intensity which depend upon the altitude of the sun above the horizon do not, during overcast periods, vary with latitude any more than they vary in the latitude of this country with the time of day. Although no measured data are available as to cloud thicknesses or as to sky brightness over cloudy periods in different countries, there appears to be reason to suppose that the effect of clouds upon light depends upon their thickness, and that the thickness of cloud which produces moderate rain or the typical overcast, if rainless, day familiar in this country obtains during similar weather conditions all over the world ; so that the reasonable requirements of indoor life over a typical wet morning in Singapore, or during a week of "levanter" cloud in Gibraltar, would not differ from the requirements of a dwelling or office in Westminster on a wet day.

In this country the light from the sky excluding direct sun has been measured daily over a period of ten years at the National Physical Laboratory, Teddington, and the results have been collated, analysed and published by the Department of Scientific and Industrial Research.[1]

They confirm an estimate of 500 foot candles from a complete unobstructed hemisphere, or 250 foot candles from a quartersphere in wet or overcast weather, which had previously been deduced by the writer from the data of sky brightness recorded in the report of the Departmental Committee on the Lighting of Factories and Workshops 1914 (Cd. 4,000) and from a somewhat meagre series of measurements in central and suburban London.

Having thus a definite standard of minimum sky brightness of sufficient frequency to determine any standard of inadequacy, it is easy to deduce that if the minimum tolerable illumination for ordinary work be fixed at the usual figure of one foot candle, then the light at any working position in an interior must be below the grumble point of reasonable people if, on account of the fenestration or on account of obstruction outside, it enjoys less than 1/250th (0.4 per cent.) of the light from a quartersphere of unobstructed sky such as would supply light to the sill of any unobstructed window.

This 0.4 per cent. sill ratio as it is called is, of course, precisely the same as 1/500th (0.2 per cent.) of the light from a hemisphere of unobstructed sky such as would supply light to any point on an unobstructed flat roof. This numerical definition of the grumble point has been standardised for international use as 0.2 per cent. daylight factor.

The requirements of dull weather, vital as they are, do not, however, constitute the only reason for selecting 0.4 per cent. sill ratio or 0.2 per cent. daylight factor as the grumble point for ordinary purposes.

When this criterion was first ascertained some 30 years ago by photometric measurements of the light at positions in a number of interiors, differing widely in size and character, where habitual users consistently grumbled at the daylight illumination, no records of sky brightness or the illumination from it existed. The enormous variations in daylight, of which the eye is unconscious, were then unknown and unsuspected ; and it was only for convenience that the grumble point was measured and recorded as the ratio between indoor and outdoor illumination, irrespective of variations in amount of illumination at the positions regarded as inadequately lit.

The strange fact that this " grumble ratio " remained constant in dull weather as well as bright, even though, as was discovered later, it might on bright days represent far more actual illumination than it represented in dull weather, was subsequently found to be capable of explanation on different grounds, partly physiological in the operation of the mechanism of the eye, and partly psychological. But whatever be the reason, it is a matter of ordinary observation that the disposition of adequately lit and inadequately lit areas in a room, as measured both by appearance and by ability to work for long periods with or without eye strain, does not vary as between fine and dull days, except over periods when shafts of direct sunshine may penetrate into, or be reflected into, the room.

It has been proved by an exhaustive series of tests carried out by the Department of Scientific and Industrial Research and H.M. Office of Works[2] that the disposition of adequate and inadequate light in any room, as judged by observation both in dull and fine weather and by long user, is identical with the disposition determined by 0.4 per cent. sill ratio measured by instruments.

The most exhaustive tests in this country would not, however, convince residents in countries enjoying less overcast weather that the same grumble point would obtain under their climatic conditions unless they were convinced of that unexpected, and apparently improbable, fact that physiological discomfort and injury does in fact result from endeavouring to work on fine days at positions indoors which have such a small proportion of the light out of doors that in dull or wet weather the illumination at such positions drops to or below one foot candle, even though the actual measured illumination there on fine days may be quite liberal.

Yet after six years of active collaboration in research on the subject, the 22 countries represented on the International Commission on Illumination agreed in 1931 ([4]) ([7]) to adopt the standard of 0.2 per cent. daylight factor ascertained by experience and tests in this country for other countries differing widely in latitude.

This was doubtless largely due to observation of the fact that this grumble point is, at least in the case of interiors suffering a material and regular obstruction (e.g., the obstruction of buildings of approximately the same height along the opposite side of a town street), nearly identical with those positions in a room from which all direct light from visible sky is obstructed. The poor light in such " no sky " areas which renders ordinary work difficult or impossible without artificial light is, in a narrow street in Gibraltar or a Bombay bazaar, no less than in Lombard Street, even more marked when the sun is shining strongly.

The eye is so sensitive to insufficiency and to glare under artificial light that it is difficult to appreciate its bovine indifference to variations in natural illumination, which are not only large but huge.

Over an ordinary well-lit room with large high windows facing a fairly open aspect the light on a fine but sunless day, with the sky just overcast with light clouds, appears to be practically uniform all over the room ; perhaps better by a slight amount, say 10 per cent., close to or outside the windows. If there be any greater difference the instantaneous adaptation of the eye is so perfect that one is not conscious of it. If, however, an attempt be made to photograph an object, say a piece of fine print, at positions :

(1) Outside the window ;
(2) Inside, near the window ;
(3) In the middle of the room ;
(4) At the back of the room ;

using plates or films of the same rapidity and the same stop, then any photographer of experience would know that to obtain negatives of the same density it would be necessary to vary the exposure. If, say, $\frac{1}{2}$ second be correct for position (1) outside, then (2) will require perhaps 1 $\frac{1}{2}$ to 2 seconds, (3) probably a full 10 minutes, and (4) possibly half an hour.

The iris diaphragm of the camera is not automatic like that of the eye, and therefore it is not, like the eye, deceived into thinking that the difference in the light at positions (1) and (4) is only 10 per cent. Its results indicate bluntly that the difference is as between 30 minutes and $\frac{1}{2}$ a second—nearly 4,000 to 1.

As soon as the eye has enough daylight for its needs it tends to reject any undesired surplus. From this it follows that the most important factor in natural lighting is the penetration of adequate light into interiors, and that it is comparatively unimportant whether the degree of surplus which exists over the area between the grumble line and the window be large or small.

It is obviously vital that the minimum illumination provided by the standard grumble point should come from some piece of unobstructed sky.

It is well known that the reflecting power of external white or light-coloured surfaces deteriorates rapidly in the smoke of towns, and it is difficult or impossible to secure that frequency of cleaning and/or renewal which alone would enable them to be depended upon—to say nothing of their inferiority as lighting agents in comparison with sky. It is therefore obvious that the material factor in the natural lighting of buildings is the depth to which external obstructions permit light from visible sky to penetrate into interiors. Fortunately this can be ascertained at once by setting up windows and their obstruction in correct relation on section as in Fig. 1.

Contoured Plans

As soon as the theoretical principles of daylight illumination had been mastered, it proved to be possible not only to measure but also to predetermine the

disposition of adequate and inadequate light, however complicated the fenestration might be and however irregular might be the external obstructions.

It was therefore possible in any dispute between neighbours in towns as to whether any proposed increased obstruction would or would not leave sufficient light, or would or would not infringe any legal rights of light, to prepare plans of the interiors under consideration contoured to indicate the disposition of adequate and inadequate light under the original and under the proposed conditions of obstruction. Upon or beside these can be superimposed a third contour representing the disposition of adequate and inadequate light which would obtain in the interior under consideration if its windows were subjected to any conditions of obstruction considered to be not unreasonable

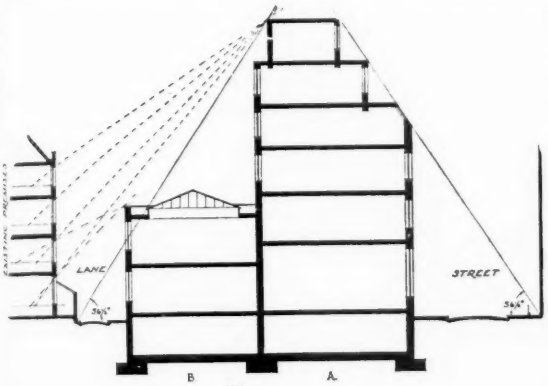


Fig. 1

for the locality, such as that of buildings 50 ft. high along the opposite side of a street 50 ft. wide, or 40 ft. high and 80 ft. distant or 100 ft. high and 80 ft. distant. Such plans representing the material facts as to light can be prepared with great accuracy and are frequently agreed for the assistance either of the parties to any dispute in negotiating their differences or of any arbitrator or legal tribunal to whom the dispute may be referred.

The use of contour plans in connection with problems in daylight illumination is a somewhat recent innovation, and the assistance which they render in all problems of natural illumination is not yet fully appreciated by those responsible for the solution of those problems.

They were first devised in 1922 to illustrate in Court a point otherwise difficult to explain. They were speedily adopted by all those concerned with the settlement of disputes between neighbours as to light. In 1927 they were recommended in the D.S.I.R. report [3] dealing with the subject, and in 1931 [4] [7] they were adopted as the most convenient method of representing facts as to daylight illumination by the International Commission on Illumination, upon which 22 countries are represented.

Contour plans indicate in the same simple and obvious form the practical results of every investigation, large or small, whether it be the simple case of a room receiving light over a wall in front or the complex case of, say, a room in a corner building with two angle windows facing the ends of several converging streets and partially lit by other windows facing in other directions. What is more important is that they can in many cases be approximated from plans contoured to indicate merely the areas from which any sky is or is not visible at table height ; and the compilation of " no sky " plans, if occasionally a little tedious, is well within the capacity of any junior architectural draughtsman. Such approximate contour plans have the usual disadvantage that they can only be used safely when the margin of error is known ; but when prepared by anyone who has had a reasonable amount of experience of the results obtained by more exact methods they can generally approximate such results with a degree of accuracy quite sufficient for all ordinary purposes ; and in cases which are too intricate to investigate precisely in the time available, they are at least preferable to the only other alternative of mere guess work, which can involve very serious errors, often wholly unsuspected.

In the settlement of disputes between neighbours with regard to loss of light and air by proposed rebuildings in towns, contour plans have proved to be not merely useful but invaluable. This is a direct measure of their value to those who are responsible for defining the degrees of amenity to be preserved, or alternatively the limits of obstruction permissible, in the administration of those provisions of the Town and Country Planning Act, 1932, which are intended to preserve adequate light and air in built-up areas, no less than in suburbs and villages. Town planning is in this respect nothing more than a reversion to the original form of the old Roman and Byzantine law of light devised by wise rulers who doubtless appreciated that the needs of a great empire could not be met by a C.3 working-class population. Almost alone amongst civilised nations this country has preserved the old Roman law throughout its history, with occasional lapses like the " Custom of London " (repealed by the Prescription Act, 1832) under which all property owners agreed to a mutual cancellation of all rights of light. The Roman law was taken seriously in this country. It required a legal decision (*Maurice* v. *Baker*, 1617) to determine that an adjoining owner was not entitled to exercise his *right* to pull down an obstructing house or to destroy its foundations until his windows had actually been darkened.

In addition to the loss of such direct and vigorous methods of preserving amenities of light, the law itself has been so emasculated by the application to it of

legal theories as to become a limited personal right of property, which can be, and frequently is, sold by anyone who happens to be its owner for the time being, although he is really nothing more than, and is often less than, a mere tenant for life. Rights of light are also often lost in the rebuilding of old premises by failure to incorporate a sufficient number of the old windows in the new lights, or by the absence of record of old windows in premises destroyed by fire. There is also no effective legal title to air.

The Town Planning Act carries out the long overdue reform of granting immediate rights not only of light, but also of air, in perpetuity, to the community as a whole instead of to a few lucky members of it, who are free to sell rights of light for ever without the slightest regard for the health and comfort of future generations who will live and work in their premises for as long as they exist, and for as long as their land carries any buildings.

The technical considerations upon which must be based the settlement, upon fair and equitable lines, of any dispute between neighbours over legal rights of light are precisely those upon which must be based any wise and equitable administration of town planning enactments ; and the legal and technical experience which has been gained in this country with regard to the former should be of no small value and assistance in solving the novel problems which arise with regard to the latter.

The Courts have been endeavouring for over a century to embody the provisions of the Prescription Act in a code of legal practice which shall be clear, unequivocal and fair ; permitting on the one hand reasonable development of valuable town sites, whilst securing on the other hand reasonable amenities for those housed on neighbouring sites. It cannot, however, be suggested that legal practice is even yet free from some grave injustices and some anomalies which offend common sense. The reform of any item of legal practice, however glaring the injustice and however ridiculous the anomaly, may take years after it has come to light. It must await the accidental combination of some action coming before the Courts which demands an *ad hoc* decision upon the particular point, a judge sufficiently strong to risk an adverse decision from the Court of Appeal, and occasionally a litigant sufficiently rich and sufficiently truculent to take his case if necessary to the House of Lords.

Much has been done of late years in clearing away anomalies and injustices in the administration of the English law of light, and it may safely be assumed that such injustices and/or anomalies as are still awaiting reform are so well known as to be almost equally valuable to those responsible for framing the administration of the Town Planning Act by indicating what to avoid.

The Act empowers local authorities to prepare detailed schemes to be approved by the Ministry of Health and by Parliament under which, *inter alia*, rebuildings in towns shall be so restricted as to leave a sufficiency of light and air ; and pending the approval of detailed schemes, similarly to restrict rebuilding under Interim Development Orders.

In the case of every rebuilding which occasions a greater obstruction than before (and few rebuildings are worth while unless they can secure increased lettable floor space) the Town Planning Act requires the local authorities in every case virtually to sit as a Court of Law to do justice as between an enterprising building owner, proposing to increase the rateable value of the district, and all his neighbours, every one of whom has, under the Act, the equivalent of prescriptive rights to a sufficiency of light under which Injunction is the only remedy ; there being no alternative, as with private rights at law, of monetary compensation.

The Interim position is particularly difficult. After Parliament has approved a scheme, the sole duty of the local authority will be to administer its detailed provisions. Pending approval by Parliament of any detailed scheme, parties aggrieved by any decision under an Interim Development Order can appeal, and if the decision were subsequently found to be *ultra vires* the final detailed scheme, the aggrieved party may recover compensation. If, therefore, the administration of the Town Planning Act is not to be hopelessly clogged and rendered unworkable by a mass of appeals, or rendered uselessly feeble by dread of appeals, it is just as essential, as it is in law, that all decisions of tribunals of first instance should be guided by clear definite rules as free from ambiguity as they are from injustice ; and that technical machinery of proven accuracy should be available whereby the facts of each and every case can be measured against such rules.

It is further necessary in the case of the Town Planning Act that the rules decided upon for Interim decisions should be such as Parliament is likely to approve a year or two hence after experience has accumulated.

The immediate problem, the object of this report, as to whether standards can be defined which are likely to prove useful in practice therefore resolves itself into the following divisions :—

(1) Is it possible to define in sufficiently precise terms criteria of amenity with regard to natural illumination, and if so, what form should they take ?

(2) To what extent would such criteria be applicable to all cases ?

(3) Can such criteria be expressed in bye-law form ?

(4) Could bye-laws embodying such criteria be applied without specialist technical knowledge ?

(1) THE POSSIBILITY OF DEFINING IN SUFFICIENTLY PRECISE TERMS CRITERIA OF AMENITY WITH REGARD TO NATURAL ILLUMINATION

It is often assumed that it ought to be possible to define criteria of amenity as the relation of adequately lit to inadequately lit floor area of ordinary rooms with normal windows. This is impossible because there is no such thing as a normal room, and normal fenestration is therefore something which defies definition.

All our conceptions of amenity have been developed by living and working in an infinite variety of interiors of all shapes and sizes served by windows of rigidly similar dimensions in the regular façades of town buildings; and, strange as it may seem, there are no practical architectural rules as to fenestration in existence.

Any practical and practicable definition of amenity in towns can only relate to the degree of external obstruction. It is fortunate that this can be expressed in very simple terms by adopting as the unit of measurement the yardstick of the amount of light left to interiors provided with reasonable fenestration by buildings of regular height along the opposite side of a parallel street. It cannot, as is very generally supposed, be expressed merely in terms of the angle of obstruction, i.e., the ratio only between the height and distance of the obstruction, regardless of the dimensions of either, and entirely disregarding the important factor of width.

Few popular fallacies are more firmly established than the obsession of the minds of architects, surveyors and town planners with the idea that the angle from the horizontal subtended by any obstruction must of necessity be all important, especially the angle at the sill of a window.

The Courts have long since refused to entertain any superstitious regard for the angle of 45°, and their scepticism is instructive.

Obstruction is the shutting off of sky which would otherwise be visible from the interiors of rooms through the windows. This must depend upon (1) the height, (2) the breadth, and (3) the distance of the obstruction in relation to the head, rather than the sill, of window affected. To attempt to define it in regulations merely by the relation to each other of two only of these three factors is merely an invitation to anomalies which can be as ridiculous as they are obvious.

For example, let the angle of obstruction which is made the acid test in a set of regulations be 45°; then a chimney-stack, or even a flagstaff, 51 feet high and 50 feet away, would be illegal, whereas a continuous wall 50 feet high of the same distance would be permissible. Equally obvious is the case of the streets and sites shown in Fig. 1, which may be assumed to be situated in a central urban area in which the local town planning committee is working to a permissible angle of obstruction of 56½° or a ratio of height to distance of 1½ to 1. They would have to permit the building A but disallow building B. Which of the two buildings is the more obstructive is obvious.

At least one large town planning authority has endeavoured to correct the tendency to anomalies involved in the restriction of building by angles alone, by stipulating that only a given proportion of any site may be built upon. This, however, fails to overcome the basic difficulty that it is impossible to control the effect on windows of more or less fixed dimensions at more or less fixed heights above ground by means of arithmetical ratios without regard to the dimensions to which such ratios are to be applied.

The quantum of light and air which would reach the interiors served by a given tier of windows from an internal court representing, say, one-third of a large site, would be very different from that which would be enjoyed through the same windows on a much smaller site. The risk of anomaly and injustice is increased if the two requirements of limiting angle of obstruction and maximum density are unrelated.

The Royal Institute of British Architects in September, 1935, published a report (5) of their Science Standing Committee which recommended that the criteria of amenity as regards light considered to be appropriate for different localities should be preserved by stipulating that new buildings should be so restricted as to present no greater obstruction than a continuous building of unlimited breadth of a definite height at a definite distance.

Unfortunately local authorities have apparently preferred to base their decisions under Interim Development Orders upon the more conventional system of angles of obstruction.

A few months ago the writer was consulted with regard to the possibility of a successful appeal against a decision strictly in accordance with certain rules based on angles which had been adopted by a large town planning authority, which disallowed two wings of a large rebuilding scheme, on account of mutual obstruction, whilst allowing the main building.

Investigation proved that interiors in the two disallowed wings would have twice the light enjoyed by the main building and by any neighbouring structures which it could affect.

Unfortunately the grounds of appeal leaked out, and the writer was informed that appropriate action by the authority had obviated any necessity for the appeal to proceed or for the Ministry of Health thereby to become aware of it.

If, however, a standard of permissible degree of obstruction be fixed upon for any locality in terms of definite dimensions instead of ratios, such as that occasioned by an obstruction continuous across the whole aspect of windows affected, e.g., that occasioned

by buildings 50 feet high in a street 50 feet wide between buildings, or 100 feet high and 100 feet distant, or 80 feet high and 64 feet distant, or 35 feet high and 70 feet distant, then by means of the simple machinery of contour plans, precise or approximate, it is not only possible but comparatively easy to ascertain exactly whether any proposed building scheme will leave the standard degree of amenity to all its actual or potential neighbours and, what is equally important, maintain it in its own rear and internal courts or light wells.

The gravamen of every subsequent appeal, whether it be from a disappointed building owner or an adjoining owner fearing a serious loss of light, would then become a matter of ascertainable fact, easily measurable with the same precision as the dimensions of a room. This fact alone would tend to reduce appeals to a minimum in much the same way that clear definite law tends, in practice, to keep disputes out of the Law Courts.

Not only is such a criterion apparently feasible for a given district, but it has in fact been applied successfully for several years to all new developments on a large and valuable residential estate in the West End of London.

It is obvious that no one criterion of permissible obstruction could possibly be applicable to all the varieties of localities to be found in any one administrative area.

That which might fairly represent reasonable development in an urban residential zone would be absurdly Utopian for central urban business areas, and on the other hand intolerably obstructive if permitted in outer suburbs.

The Courts have recognised this in ancient light disputes. The latest pronouncement on the subject of the Court of Appeal (*Fishenden* v. *Higgs & Hill*) (6) emphasised the duty of the Judges of first instance of giving due regard to locality by pointing out that a reasonable owner of prescriptive rights did not require in the City of London, nor would the Courts protect to him, the same degree of amenity which he would reasonably expect and which the Courts would protect to him in Mayfair. That would differ even more widely from what would be expected by reasonable people, and would therefore presumably be protected by the Courts in, say, Wimbledon.

The principle of dividing up any administrative area into zones in which different criteria of amenity should be protected by different criteria of permissible obstruction is recognised by the Model Clauses recommended by the Ministry of Health, by the recommendations of the R.I.B.A., and is incorporated in the declared policy of the L.C.C. under Interim Development Orders. It may therefore be regarded as both obvious and accepted.

One point which is bound to arise is as to which degree of amenity should prevail along any arbitrary line of demarcation between, say, a residential and a business zone. For example, should it be permissible to rebuild the quasi residental area of Gray's Inn to obstruct business premises in Gray's Inn Road to the extent permissible in a business zone, or alternatively, should business premises in Gray's Inn Road be so restricted so as to preserve residential amenities to chambers in Gray's Inn which have elected to take their light from over a business zone.

This, however, is a detail which can be foreseen and provided for in the wording of regulations, as can also the question as to whether restrictions shall apply to all new obstructions or to all new buildings, i.e., as to whether existing obstructions, excessive for the locality, should be perpetuated as of right in rebuildings.

The answer to the first question formulated above is, therefore, that it is possible to define in sufficiently precise terms criteria of amenity with regard to natural illumination and that it is essential that such criteria should take the form of permissible degrees of obstruction, defined by stipulating that no new obstruction (or no new building) in a given zone shall present to any actual or potential buildings in that zone a greater effective obstruction occasioning a lesser penetration of adequate light than would be presented by building X ft. high above the pavement level of a street Y ft. wide between buildings.

(2) THE EXTENT TO WHICH ANY GIVEN CRITERIA OF AMENITY DEFINED BY PERMISSIBLE DEGREES OF OBSTRUCTION WOULD BE APPLICABLE TO ALL CASES

Contour plans have been used for many years to indicate the exact effect on the lighting of interiors of any actual or proposed alteration to any existing obstructions, and upon them can be superimposed for comparison the effect of any standard obstruction considered to be reasonable for the locality. This is equally true whether the obstruction be simple or complex.

To take, for example, what is probably the most extreme case. Let it be assumed that a local authority is called upon to allow or to disallow a proposal to rebuild to a greater height an existing building on a tapering site at the intersection of two roads with a circus.

Whether this would be more or less obstructive to the interiors of any or all buildings in the vicinity than the permissible obstruction standardised for the locality would be a matter of ascertainable fact. It might, and in some cases would, involve a troublesome investigation, although in most cases it would be found to be less troublesome than it appears to be at first sight.

It would, however, not be unreasonable to require from the building owner, desirous of obtaining the substantial profits of raising, such evidence as might be necessary as to the effect of his scheme upon such neighbouring buildings as would lose light by it.

The requirements of potential, rather than actual, neighbouring buildings should be considered. Near to any proposed raising there may be single storey top-lit buildings which would not be affected—or even vacant sites; and it is essentially the duty of town planners to provide for future contingencies rather than the accident of present circumstances.

Town sites will not remain empty long, and sooner rather than later single storey top-lit premises will be replaced by multi-storey side-lit buildings. Fortunately the preparation of contour plans to indicate the effect of any given obstruction is merely simple geometry on a drawing-board; and it is just as easy to ascertain the effect of a raised obstruction upon a hypothetical as upon an actual building. Actually it is easier; for the former can be drawn from an approved section and elevation of windows duly proportioned to standard rooms, whereas the latter would entail a considerable amount of measuring up.

Town buildings generally consist of a haphazard jumble, for all of which it would be idle to attempt to legislate. It is not unusual to find in towns a majority of 18th and 19th century buildings with windows well suited to light rooms not unduly deep under the conditions of moderate obstruction in towns which prevailed when they were erected, a few sensible modern buildings with floor heights and windows sufficiently high to be efficient under conditions of even severe obstruction, e.g., the new R.I.B.A. Headquarters in Portland Place, a few old structures with unduly small windows, only suitable for the rural or semi-rural conditions coeval with them, and perhaps some ultra modern structures characterised by the fashionable broad, low fenestration which in towns clearly means artificial light all day and every day from a few feet back from the windows. Any attempt to provide for the worst of these would probably arrest all rebuilding. To provide only for the best would render the Act ineffective for centuries.

All that those who are responsible for the administration of the Town Planning Act are reasonably called upon to do, and all in fact that they can do, is to preserve a sufficiency of light and air to those who have provided themselves with windows reasonably able to utilise it, and appellants objecting to a proposed raising should be required to prove inadequacy through suitable windows.

A typical elevation and section of a town façade showing depths of rooms lit (Fig. 2) was prepared by the R.I.B.A. for the use of that section of the International Commission on Illumination dealing with natural illumination in connection with building regulations and town planning which in 1932 standardised the grumble point of insufficient light for ordinary purposes and the use of contour plans.

Although this standard of fenestration was finally adopted only after it had been broadcast to all members of the R.I.B.A. and all comments upon it had been considered, it is possible that opinions may differ with regard to it in view of the changed fashion of architectural design. It is therefore merely illustrated to indicate

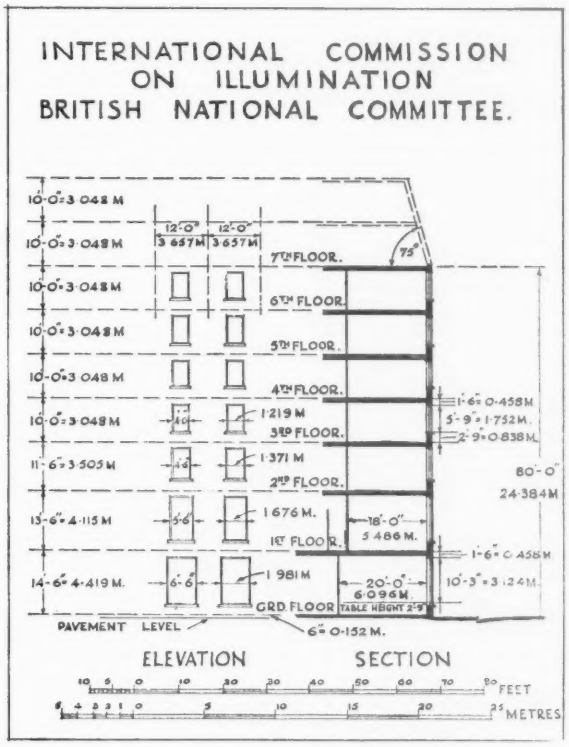


Fig. 2

the possibility of defining some compromise upon which views as to adequate fenestration can crystallise. The standard shown in Fig. 2 might, or might not, be considered applicable to urban residential zones. It would certainly be required to be varied for suburban zones.

If the principle be adopted that it is desirable to legislate for a standard façade or façades representing a reasonable compromise, then it is possible for the technical advisers of town planning authorities to anticipate the labour of dealing with applications *seriatim* by preparing in advance maps of each zone of their

area showing the limits of permissible building consistent with the standard of amenity determined upon for that zone, at least as regards the permissible height and contour of street frontages.

In view of the desirability of preserving as lungs to overbuilt towns the advantages of street intersections and open spaces, it would doubtless be desirable to restrict raisings in such situations to a greater extent than would be necessary in order to preserve amenities of light alone.

The answer to the second question is therefore that criteria determined by permissible degrees of obstruction to light are applicable to all cases, simple or complex, provided such degrees of obstruction are defined by fixed dimensions of height and distance and not merely as ratios of height to distance.

(3) THE POSSIBILITY OF EXPRESSING IN THE FORM OF BYE-LAWS PROVISIONS TO MAINTAIN CRITERIA OF AMENITY

The possibility of expressing in the form of bye-laws provisions intended to maintain criteria of amenity will already have become obvious, and the considerations which require to be included can now be more or less recapitulated. Before this is done, however, it is necessary to consider the question of limiting height.

High buildings do not necessarily mean reduced light and air to neighbouring buildings. Provided they are sufficiently isolated they may secure the reverse. If it be required to house a given population on a given area of land, the maximum light, air and recreation space can be secured by concentrating the necessary living-rooms into buildings taken as high, and kept as far apart, as is practicable. The usual lay-out of towns, viz., all available land covered with low buildings and streets, involves in fact the maximum of obstruction to light, air and sun to lower floors which are more used than upper floors. An ideal lay-out is, however, only feasible on large vacant sites or building estates in one ownership, where the necessary isolation can be obtained from within the limits of that ownership. The typical administrative area is divided up between a large number of ratepayer electors. Any attempt to relieve congestion by permitting the erection of skyscrapers dotted here and there over an administrative area, securing the necessary isolation by keeping down surrounding buildings, would obviously evoke an overwhelming agitation from other ratepaying landowners denied similar facilities for improving their ground rents. It might, however, be urged that any limitation of height might prevent ideal lay-outs, and that properly-worded enactments defining permissible degrees of obstruction should render unnecessary, *qua* light and air, limitation of total height. Unfortunately, as will be shown later, it is a geometrical necessity to define limits of permissible obstruction in terms of the greatest height, in order to avoid anomalies. A limit of permissible height is also necessary in order to ensure effective fire fighting, and ideal lay-outs can be dealt with under the usual powers of waiver, as and when they arise.

The number of zones suggested by the R.I.B.A. in 1935 (3) as requiring different criteria of amenity, were (*a*) Central Urban, (*b*) Urban Residential, and (*c*) Suburban. Further subdivisions may possibly be found desirable in order to differentiate between areas mainly devoted to offices and to warehouses or factories in A zones, and between inner and outer suburbs. Opinions will doubtless differ as to the permissible limit of obstruction in the A zones in the centres of towns, but more or less stereotyped practice in the past has so moulded our ideas that criteria for B and C zones to a large extent suggest themselves. For example, the urban residential B zones of London and many large towns were laid out in the 18th and 19th centuries, the prevailing width of street being 50 feet between houses not exceeding about 50 feet high. These buildings, generally terrace houses, were built with floor heights and windows which had been evolved by experience as convenient, efficient and pleasing. As such, not only floor heights and window proportions, but also degrees of obstruction became almost stereotyped, and have through many years gradually controlled the evolution of our ideas. As a result, if the windows and floor heights of a typical Georgian or Early Victorian residence or office faced with a continuous line of similar houses about 50 feet high on the other side of a street 50 feet wide be not what the best class of town residences ought to enjoy, at least it is what the majority of people would consider to be appropriate for it.

The raising of the height of buildings from 50 feet to the customary 100 feet with the top 20 feet set back at 75° from the horizontal, as permitted by the London Building Act, involves unexpected difficulties in determining the distance at which a continuous obstruction 100 feet high must be kept in order to preserve what may be called the 50-50 or Georgian degree of amenity. The inclination of the top 20 feet at 75° from the horizontal accounts for about 5 feet of this distance. As will be seen from Fig. 3, if this be determined by a desire to preserve the "Georgian" light in either the original premises still eminently suitable for habitation, or in newer houses built to similar floor and window heights, then the requirements of each floor would require a different distance to be specified.

The lighting of any interior depends upon the depth of penetration of adequate light (0.2 per cent. daylight factor) at table height. This may be considered as being more or less directly proportioned to the depth

of penetration of direct light from sky visible from table height from over or beside external obstructions, especially in the case of obstructions continuous over the aspect of a window. This is determined by lines drawn on section from the top of obstruction through the window-head and continued down to table height, as in Figs. 1 and 3.

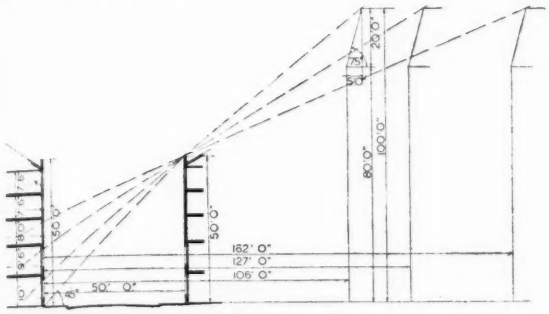


Fig. 3

It will be obvious that if the lighting of typical ground floor rooms were the sole consideration it would only be necessary to specify that obstructions should not be such as to have any worse effect than a building 100 feet high at a distance of, say, 106 feet. This, however, would not protect the "Georgian" light to floors above the ground floor. In order to ensure that to a typical first floor room the standard obstruction would have to be not less than 127 feet distant, and if still higher floors are to be treated as entitled to the conditions of the days when houses of four or five stories represented the general maximum, then any buildings 100 feet high would have to be kept at distances which would obviously be prohibitive.

The geometrical difficulty of defining any criterion of amenity in terms of permissible obstruction, unless the highest permissible obstruction is specified, will now be apparent. It will also be obvious that if 80 feet or 100 feet houses are allowed in a residential or B zone, all the amenities which follow from the presence of houses not exceeding 50 feet cannot be obtained. They are lost irretrievably. Some of them, however, such as an almost unobstructed horizon to every fifth floor room, may be reasonably classed as luxuries rather than reasonable amenities more or less in the nature of necessities.

It might even be that the whole of the difference between the effect on all floors of a continuous obstruction 50 feet high and 50 feet distant and one 100 feet high and 100 feet distant is one of luxury rather than reasonable amenity. Unfortunately there can be no preponderance of considered opinion on the point because there is practically no appreciable volume of considered opinion on the subject at all.

Medical officers consider it to be a matter for architects and/or town planners, whilst both the latter pass it on to each other.

The only practical method of judging of the reasonableness or otherwise of any criterion of permissible obstruction in terms of a continuous obstruction of maximum permissible height at minimum permissible distance is to study exhaustively the interiors at different floor levels in a building so obstructed and provided with reasonable windows extending up to at least 12 ins. below the ceilings.

It is not enough merely to attempt to visualise the lighting conditions in a modern roadway 100 feet wide with buildings 100 feet high each side, e.g., Kingsway. One instinctively visualises such a street from the point of view of a pedestrian and the reactions of a pedestrian in the open air are not necessarily identical with those of a worker or dweller indoors. Some years' experience on the West End residential estate, already quoted, of the working practice of the criterion of a continuous obstruction 100 feet high and 105 feet distant indicates that in any given case there may be expected a consensus of opinion on the part of everyone interested in the rebuilding of old properties that the criterion is far too stringent, extravagant and even ridiculous. Similar unanimity may, however, be expected from those who have to submit to the physical results of that criterion to the effect that it is far too feeble.

After making the respective discounts which have proved to be appropriate in disputes as to light and air, it would seem to be probable that the criterion is neither excessively stringent nor unduly lenient for town residential areas, but that on the whole a criterion of 80 feet at 80 feet distance would be preferable.

As shopping streets in residential areas are frequently occupied as residential flats above the ground or first floors there would appear to be no reason for varying the criterion in order to allow heavier obstructions in shopping streets.

Criteria for suburbs have similarly been created by long user. For many years all new suburban streets have been set out to a standard width of 40 feet over the footways with building lines back at least 15 feet on each side. As the height of modern suburban houses seldom exceeds 35 feet the criterion of continuous obstruction 35 feet high and 70 feet distant practically suggests itself as well established practice.

As will be seen from Fig. 4, this should afford visible sky at table height to the back of ground floor rooms with windows of reasonably adequate height. It also permits of the penetration of a certain amount of low angle and winter sunshine. It would therefore appear that no more stringent restriction would be required, even for rural districts.

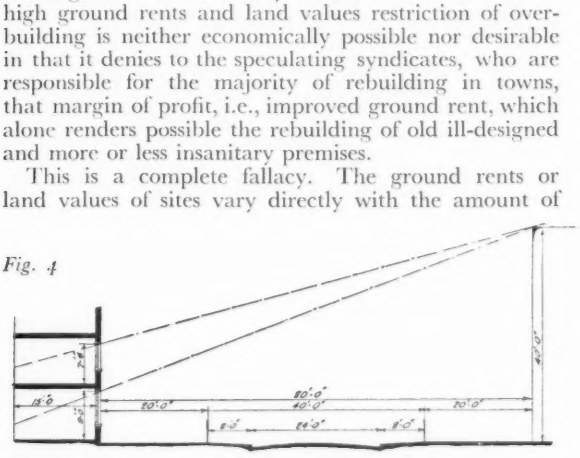
In order, however, not to subject schemes for erecting blocks of flats of reasonable height to the necessity of obtaining special waivers, it might be considered

advisable to make the stipulation in the form of a limiting height of, say, 50 feet at a distance of 100 feet, or preferably 40 feet at a distance of 80 feet.

In connection with the actual limits to be inserted in bye-laws, it should be noted that whenever statutory limitations to overbuilding are under consideration, the argument is invariably adduced that in view of high ground rents and land values restriction of overbuilding is neither economically possible nor desirable in that it denies to the speculating syndicates, who are responsible for the majority of rebuilding in towns, that margin of profit, i.e., improved ground rent, which alone renders possible the rebuilding of old ill-designed and more or less insanitary premises.

This is a complete fallacy. The ground rents or land values of sites vary directly with the amount of

Fig. 4



lettable floor space which can be crowded on to them. Lower ground rents mean less daring building schemes and a wider market for building leases.

Restrictions upon overbuilding, i.e., town planning, certainly reduce the more or less temporary market price of particular sites, and insistence upon a policy of fair treatment to sitting lessees, who have no legal rights, by any large estate of town residential properties may appear to the trustees of such an estate in the light of an unnecessary sacrifice, for the sake of altruistic ideals, of huge sums in ground rents obtainable from speculating rebuilding syndicates.

It needs some courage and foresight to realise that town planning, as represented by fair treatment of sitting lessees, soon pays far better than the snatching of immediate profits, which may be quite legal but otherwise indefensible.

In much the same way that a shopkeeper's most valuable assets and advertisements are satisfied customers, so also a West End estate, with an established reputation for dealing fairly with its lessees with regard to the light and air which they enjoy only on sufferance, may as a result of such altruistic ideals find that its properties let readily to the best, and therefore the most profitable, class of lessees who will not consider a lease on another estate with a different reputation, however tempting the rent.

On the foregoing considerations it is suggested that clauses, somewhat on the following lines, incorporated in a town planning scheme would secure reasonable amenity without unduly restricting reasonable development, and without any of those ambiguities which tend to bring the Act into disrepute.

For those local authorities and architects who prefer the simplicity of the system of limiting buildings by angles, this more exact system can, of course, be rendered permissible merely as an alternative available to those who wish to utilise any advantages which may be inherent in the position of valuable sites. For example, in a Northern town it was found to be feasible to design a tower 40 feet by 40 feet, 26 stories high, urgently needed for the organisation of transport in a situation within sight of the town hall which occasioned no actionable injury to any of its very numerous neighbours.

It will be noted that the suggested clauses empower a town planning committee to require that on the rebuilding of an existing property, already unreasonably obstructive, squatters' rights in that offence against neighbours should be disregarded and not allowed to justify the perpetuation of selfishness.

Suggested Clauses Alternative to the Usual Limitations by Angle in a Town Planning Scheme to Secure Light and Air in an Administrative Area Divided into the Following Zones:

Zone A.—Central Urban. Zone B.—Urban Residential. Zone C.—Suburban.

(1) After the appointed day (for the town planning scheme to come into force) no new buildings shall be erected which will occasion to any part of any building or potential building a greater degree of obstruction to light than is specified in the schedule of this scheme.

For the purpose of this Clause (Section) any existing building rebuilt to a greater extent than one-half its cubical contents shall be deemed to be a new building.

For the purpose of this Clause (Section) the effect upon any building or potential building shall be ascertained on the assumption that such building or potential building is constructed in accordance with the floor heights, window dimensions and depth of rooms lit shown on the Standard of Fenestration shown in Appendix Y of this scheme, but not exceeding 100 feet high in Zones marked A, 80 feet high in Zones marked B, and 40 feet high in Zones marked C on the plan attached hereto.

For the purpose of this Clause (Section) any part of any building or potential building shall include all parts of the said new building lit by internal light well or rear, front or side courts.

For the purpose of this Clause (Section) any greater degree of obstruction to light may be measured by the effect on the average penetration of adequate light (0.2 per cent. daylight factor) at table height 2 ft. 9 in. above floor level.

Nothing in this Clause (Section) shall authorise, on account of light derived from any street intersection or open space, the erection of any building on a street frontage along a length of frontage greater than the width of the street between building lines to a greater height and/or profile than that rendered permissible by the said width of the street between building lines.

(2) The drawings of proposed new buildings submitted for approval must be accompanied by such evidence as the

authority may reasonably require to prove that the provisions of Clause (Section) 1 are complied with.

Schedule Y Referred To

Limits of Permissible Obstruction of Light to Existing or Potential Buildings.

(1) *To all buildings or parts of buildings in Zone A.*

Any building or structure which will not occasion to any interior in any building or potential building a greater degree of obstruction to light than would be occasioned by a continuous obstruction of unlimited length across the aspect of every window and parallel with the plane of the glass 100 feet high above the level of the ground floor of the building obstructed and 80 feet distant from the outside of the window wall.

(2) *To all buildings or parts of buildings in Zone B.*

Any building or structure which will not occasion to any interior in any building or potential building situated in any Zone marked B on the plan attached hereto a greater degree of obstruction to light than would be occasioned by a continuous obstruction of unlimited length across the aspect of every window, and parallel with the plane of the glass, 80 feet high above the level of the ground floor of the building obstructed and 80 feet distant from the outside of the window wall.

(3) *To all buildings or parts of buildings in Zone C.*

Any building or structure which will not occasion to any interior in any building or potential building situated in any Zone marked C on the plan attached hereto a greater degree of obstruction to light than would be occasioned by a continuous obstruction of unlimited length across the aspect of every window and parallel with the plane of the glass 40 feet high above the ground floor level of the building affected and 80 feet distant from the outside of the window wall.

With regard to the "frontier" difficulty already mentioned, it will be noted that the wording suggested, if unaccompanied by any interzonal modification, requires buildings on the frontiers to respect the degree of amenity proper for the adjoining zone.

Buildings on the edge of a residential zone, for example, are not penalised by reason of the fact that their designers have elected to open essential windows looking into a business zone; and on other frontiers of residential zones, the owners of properties on the edges of adjoining suburban zones must respect suburban amenities.

(4) THE TECHNICAL KNOWLEDGE REQUIRED IN THE ADMINISTRATION OF BYE-LAWS EMBODYING CRITERIA OF AMENITY IN THE FORM SUGGESTED

The art of fenestration in so far as it may be defined as the design of windows for the adequate lighting of interiors in towns finds no place in modern architectural practice or education. Objection may therefore be anticipated to any form of bye-law which calls for any exercise by architects of any part of the modern technique of measuring and pre-determining natural illumination. Any such objection would, however, be removed by continuing the practice of specifying restrictions by angles with or without stipulations as to density and adding the more exact method for use by those applicants who consider that any labour involved is justified by the value of the proposed building, or by applicants who consider themselves to be aggrieved by the application of rule of thumb methods.

The modern technique of measuring and pre-determining daylight is in no sense the monopoly of specialists, although the usual efforts have been made to invest it with a false intricacy by the invention of pseudo-scientific terms and the introduction of unnecessary mathematics and complicated formulæ.

All developments have been freely published as the method became more and more used in the settlement of disputes between neighbours as to the rights of light, together with such simplifications and labour-saving devices as have been evolved from time to time.

The publications have been carefully summarised in a report by the Department of Scientific and Industrial Research issued by H.M. Stationery Office at the price of a packet of cigarettes.

Unfortunately very few architects or surveyors have taken the trouble to make themselves acquainted even with the simple geometrical principles involved; and the subject is neither included in the curricula of architectural schools nor in the syllabus of architectural examinations.

The forms of bye-laws suggested above represent an attempt to evolve the simplest possible form of restrictive limits to be placed upon new buildings, easily defined and applied by local officials to the majority of ordinary applications for the approval of building schemes, but yet possessing inherent elasticity by means of which any architect who takes the trouble to do so can exploit to the full any advantage possessed by any site which enables it to carry more obstructive buildings than its neighbours without interfering with the standard of reasonable amenity fixed for the locality.

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(3) *The Penetration of Daylight and Sunlight into Buildings.* Illumination Research Technical Paper No. 7 (First Edition).
(4) Ditto. Ditto. (Second Edition). 1932.
(5) *Daylight Problems under the Town and Country Planning Act.* Journal R.I.B.A. 7 September 1935.
(6) *The Law Times,* 31 August 1935, p. 140.
(7) Commission Internationale de l'Eclairage. Compte Rendu des Séances, 1931, p. 225.

Correspondence

KING'S CROSS STATION ROOF

Snatts,
Limpsfield,
Surrey.
18.9.37

To the Editor, JOURNAL R.I.B.A.

DEAR SIR,—In Mr. Henry-Russell Hitchcock's very interesting lecture on "Early Victorian Architecture," the King's Cross Station roofs are quoted as early examples of metal and glass construction on a fairly big scale, but actually these roofs were constructed originally with laminated wood ribs, which were replaced by the present steel ribs, to the best of my memory, about 1910, or, say, about 60 years after they were made. They were built up of several thicknesses of bent boards bolted through.

You may possibly think it worth while to call attention in the JOURNAL to this rather bold, but apparently successful, timber construction—or you may not!

Yours sincerely,
ARTHUR KEEN [*F.*]

COTSWOLD STONE TILES

East Meon,
Hants.
14.9.37

To the Editor, JOURNAL R.I.B.A.

DEAR SIR,—Sir Fabian Ware calls attention, as Chairman of the C.P.R.E., to the very reprehensible practice of stripping the roofs of agricultural cottages and barns, on which nature has worked with inimitable beauty, for re-use on new houses. The practice is general throughout England, but the resolution condemning the practice is admirable.

For a group of cottages I recently supervised in the Cotswold district I specified stone tiles, but the builder, having a quantity of old tiles from various sources, used these, as, no doubt, being cheaper than new ones. I understand a builder takes the old tiles as payment for the necessary repairs and re-roofing of old buildings with composition, or even corrugated iron, or the demolition of the buildings, the cost of the renewal of the timber and re-tiling of these long-neglected buildings being prohibitive.

Until the quarrying of stone for roofs and walls is made a practical proposition, these practices will continue, and unpleasant materials be used instead. May I suggest that more quarries be made available, and a list made of all disused places where stone could be readily procured with modern mechanical means to reduce cost of labour and transit? It is good to find the roof still advocated for the Cotswolds, it seems to be disappearing in many districts, temporarily, I am sure in so variable a climate. The stone roof insists firmly upon being laid at something more than a square pitch, and on good sized timber, but it is cheaper in the long run, and might well be afforded by the omission of many expensive features. It calls for great simplicity of planning, the outstanding merit surely of the finest modern work.

Yours faithfully,
P. MORLEY-HORDER [*F.*]

"PORTRAITS OF INIGO JONES"

12 Pleydell Avenue,
Stamford Brook,
London, W.6.
28.8.37

To the Editor, JOURNAL R.I.B.A.

DEAR SIR,—In the JOURNAL of 14 August reference is made to portraits of Inigo Jones. It may be interesting to note that, in addition to the portraits referred to, there is one in Chiswick House. It occurs in an ornamental round over a doorway in the south-west room on the first floor of the Earl of Burlington's villa, which is the centre part of the present Chiswick House, the east and west wings having been added in 1788 by James Wyatt for the 5th Duke of Devonshire.

It is recorded in *The English Connoisseur* of 1766 that the artist of this Inigo Jones' portrait was Dobson.

It may be mentioned that it is only in the south-west and south-east rooms on the first floor of Lord Burlington's villa that ornamental rounds were designed for the insertion of portraits, and for this reason, no doubt, these portraits, six in number, still remain.

On the south front of Chiswick House there are two statues; at the east end that of Inigo Jones, and at the west end that of Palladio.

Yours faithfully,
FRANCIS R. TAYLOR [*L.*]

ARCHITECTURAL TRANSLATIONS

British Museum,
London, W.C.1.
30.8.37

To the Editor, JOURNAL R.I.B.A.

DEAR SIR,—I regret to trouble you with the kind of application which is too common in the experience of all persons in responsible positions, but this case seems to me rather exceptional.

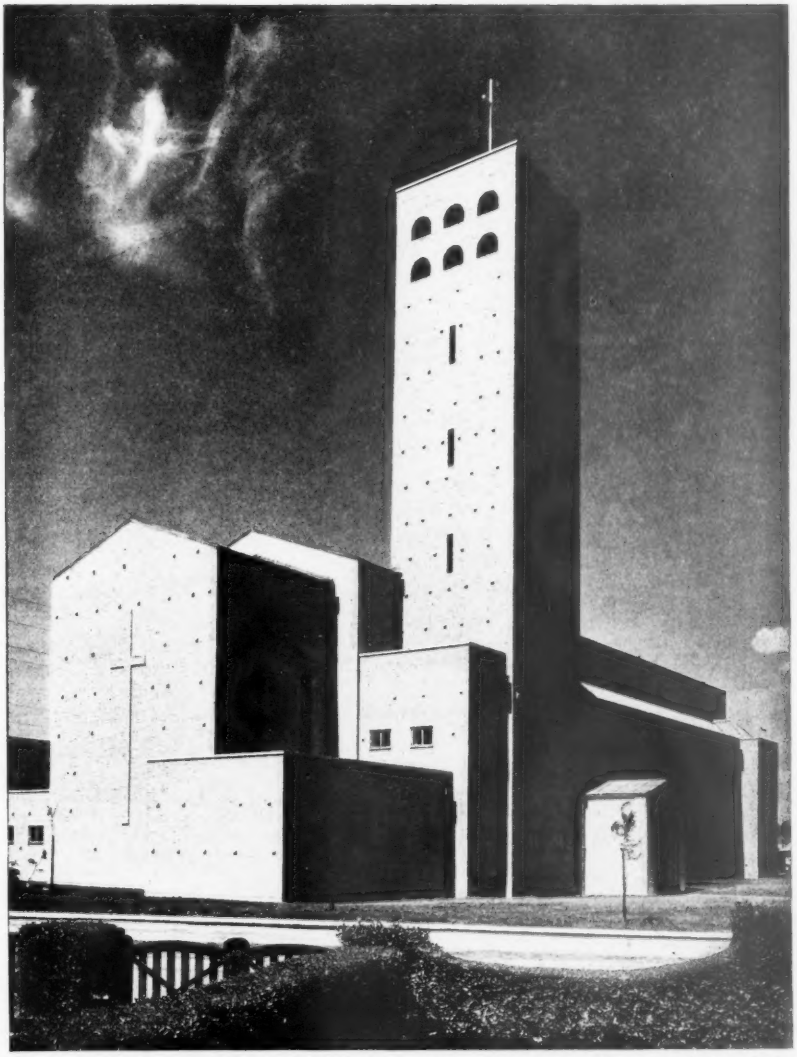
It is that of Mrs. Arthur Cave (41 George Street, Baker Street, W.1), the widow of a Foreign Office official, now left, at the age of rather over 40, in urgent need of work for a livelihood. This is the common story, but Mrs. Cave is an exceptional person. She is, of course, a British subject by marriage, but is Russian by birth; she has a perfect knowledge of French and German, and some knowledge of other important European languages, and has an architectural diploma in France. It occurs to me that the dearth of linguists in this country with a command of Russian and other Slavonic tongues is severely felt by editors wishing to obtain a survey of foreign contemporary literature and periodicals, and that Mrs. Cave, with her knowledge not only of languages but of architecture, might fill a gap. Mrs. Cave is highly spoken of on grounds of personal character by those who know her better than I do. She has been working here, mainly on Near Eastern archæology, for some time.

I am, dear Sir,
Yours faithfully,
A. ESDAILE,
Secretary

SAINT ALBAN'S CHURCH

NORTH HARROW

Architect:
ARTHUR W. KENYON [F.]



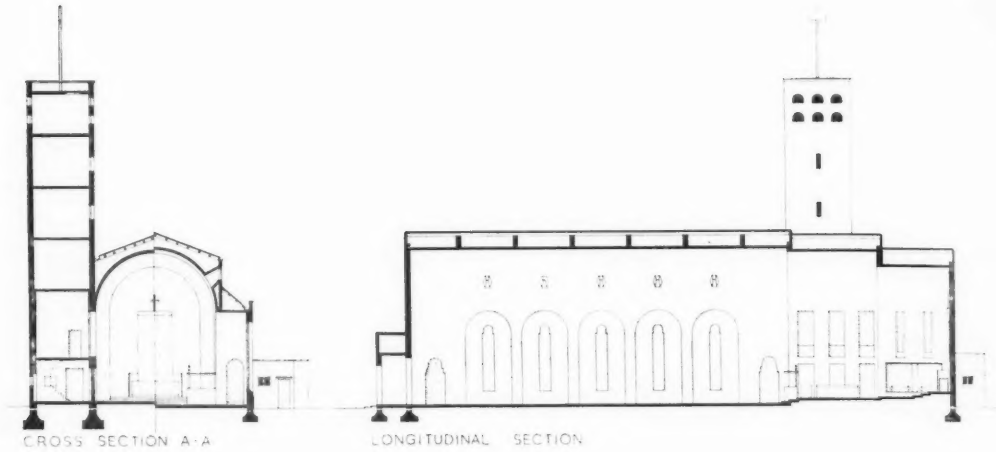
The site has been kept free from railings and is turfed and bordered with a raised stone kerb. The tower is well placed to be seen from surrounding streets

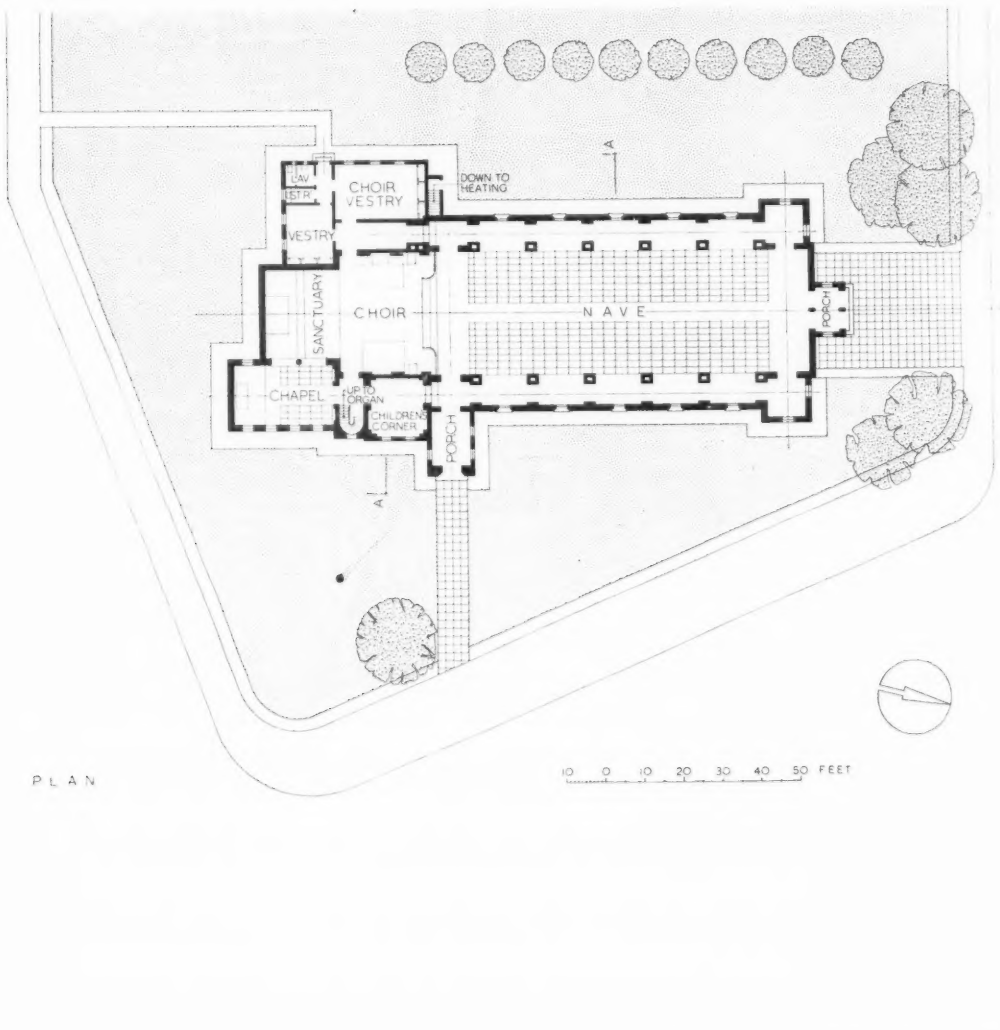
This church has been built in a new suburb and occupies a level site of irregular shape, bounded by three roads. By providing a raised stone kerb and lawns round the building the architect has made it appear to stand in an open space—a pleasant feature in a network of regular suburban streets with fenced front gardens.

PLAN AND STRUCTURE

The tower, at the side of the nave, rises directly out of the open space, and is so placed as to be visible from several roads. Its tall rectangular outline contrasts well with the horizontal masses of nave, aisles and choir. The structure consists of a reinforced concrete frame supporting a main barrel vault over the nave and secondary vaults between the piers (see photograph on page 1061). The outer walls, tower, Lady chapel and vestries are of solid brickwork. Vertical ribs rising from the main points of support in the nave, above the barrel vault, carry the wooden purlins of the outer roof, and buttress the external wall above springing level. There is no chancel arch, the chancel and sanctuary being marked by vaults of slightly less diameter than that of the nave.

The facing bricks are Dutch, mottled golden brown. Slightly projecting headers make a pattern over the wall surfaces. The tower has a batter of 1 inch in 10 feet. The main roofs are covered with copper, treated to give a green patina; the aisle roofs are pantiled and the flat roofs asphalted. The main


CROSS SECTION A-A
LONGITUDINAL SECTION


CHOIR VESTRY
DOWN TO HEATING
VESTRY
SANCTUARY
CHOIR
NAVE
PORCH
CHAPEL
CHILDREN'S CORNER
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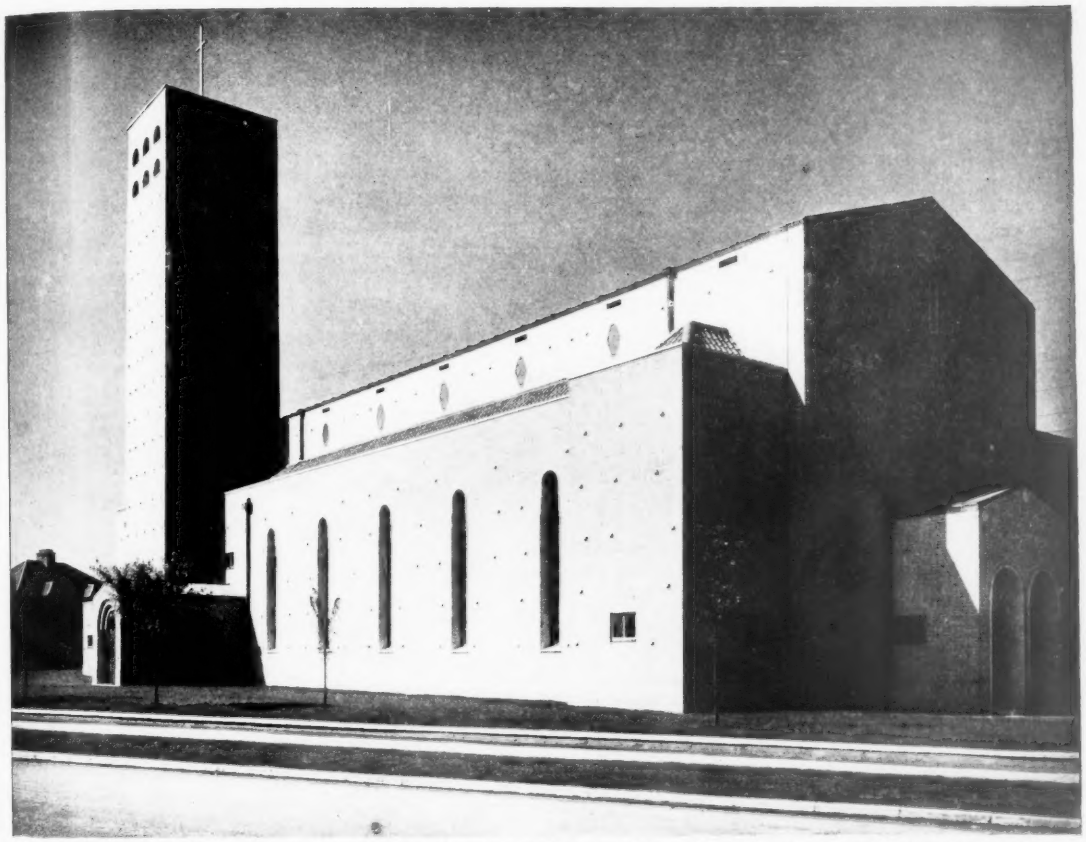


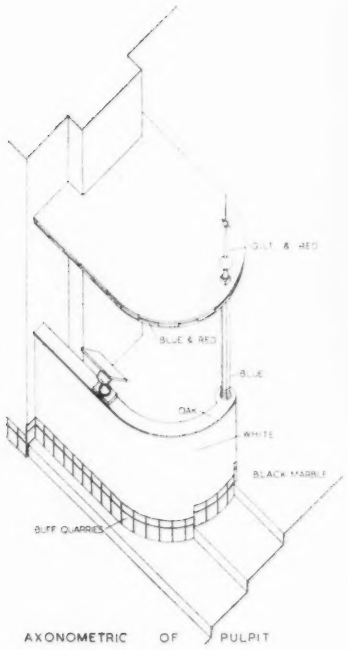
The structure consists of a reinforced concrete frame and vaults, filled in and faced with brickwork. Dutch golden brown bricks are used for facing with a pattern of projecting headers. The main roofs are covered with copper treated to give a green patina

windows are steel, glazed with crown glass ; the smaller windows have oak frames and the doors are of oak. The general effect of the exterior depends mainly on the simple bold massing and very little on detail which has been kept very simple. A plain gilt cross surmounts the tower and there are two plain Portland stone arches at the "west" porch.

Interior Finish and Equipment

All the interior wall and vault surfaces are finished white and rough textured. The main vault and "west" wall are covered with acoustic plaster matching in colour and finish the ordinary float finished plaster on the other surfaces. The general decorative effect depends on the occasional use of strong colour contrasting with the white walls and plain woodwork. The floors are of stained pine, the pews of British Columbian pine, the choir stalls, altar rail and general joinery are of oak. In strong contrast the floor of the chancel and sanctuary is paved with black marble in two slightly different shades. The altar frontal is red and oatmeal, the back cloth blue and silver and the riddels cream and blue. Above is a plain black cross.

Notes of strong colour, red, blue and gold, are also used to emphasise the sounding boards of the pulpit and reading desk. The nave is lit by hanging frosted spheres which have a gilt "halo," these are hung by plain wooden brackets and cords in two tones of blue. The organ enclosure in the first floor of the tower has its openings temporarily covered with net curtains ; grilles are to be provided in the future. The organ console is placed in the choir. The font is a simple cylinder of Portland stone, encircled by incised and gilt lines and a cross ; the cover is oak (see drawing of the font on page 1061). On the aisle wall opposite the side porch there is a Portland stone figure of



AXONOMETRIC OF PULPIT

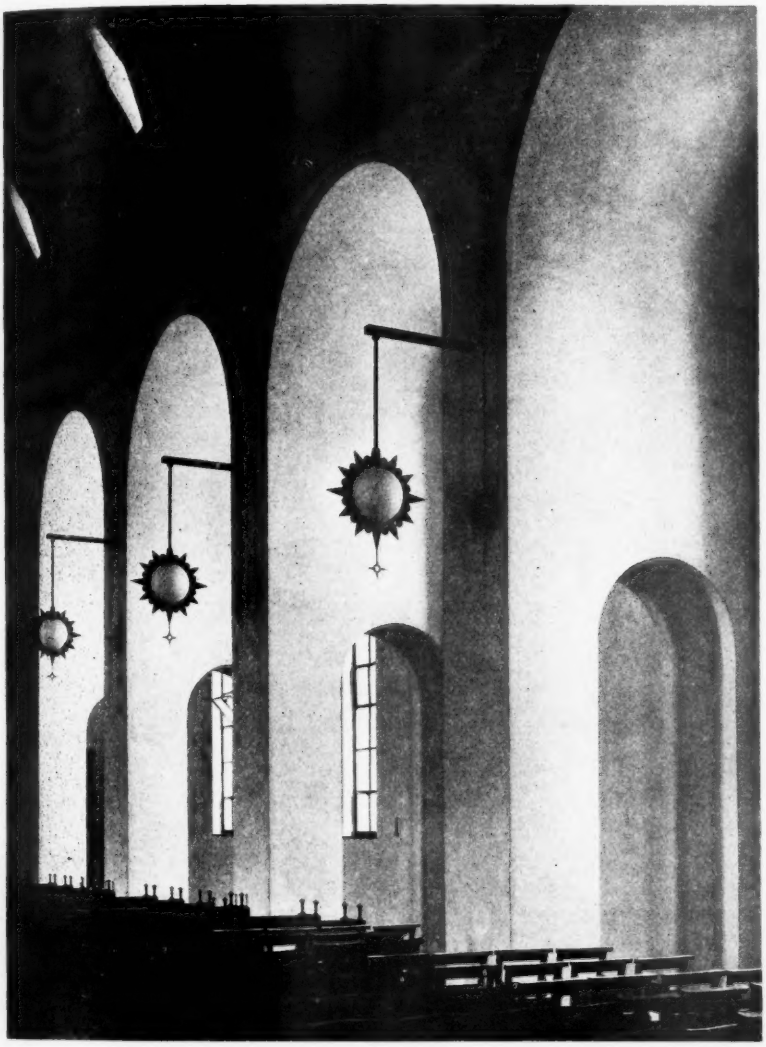
Right: This general view of the interior shows the narrowing of the main span to mark the chancel and sanctuary. The pulpit and reading desks with their brightly coloured sounding boards balance and match each other. A detail of one of these with notes on colours and materials is given above. The altar frontal is oatmeal and red, the back cloth blue and silver and the cross black

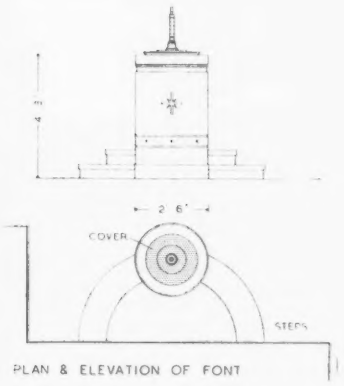
St. Alban, on a wall bracket. This is seen immediately on entering the building.

The Lady Chapel is the gift of the London Rifle Brigade. It is attractively panelled in squares of oak plywood, in which smaller squares of English walnut in two shades are inlaid, the panels being bordered by narrow strips painted sealing-wax red. The altar is in tones of blue and cream with a little red, and stands on a Portland stone step. The lights are pearl white cylinders standing on gilt wooden brackets. The chairs are of oak.

Heating is by means of hot air. Two furnaces with inlet and return gratings are placed in the floor near the chancel steps. It has been found that they warm the whole building quite evenly, including the Lady Chapel.

The contract price of the building was £13,500. This includes the external layout, the organ and all





PLAN & ELEVATION OF FONT

Left : Side view of the nave showing the main vault, side vaults and aisle arches, which are in reinforced concrete. The wall surface is coloured white and consists of acoustic plaster, placed where required, and ordinary plaster, which match one another. The lights are frosted spheres with golden haloes and blue brackets and cords. Above is a detail of the font in Portland stone with incised and gilt decoration

furniture and equipment. The bells, organ grilles and a ceiling painting in the Lady Chapel are to be provided in the future.

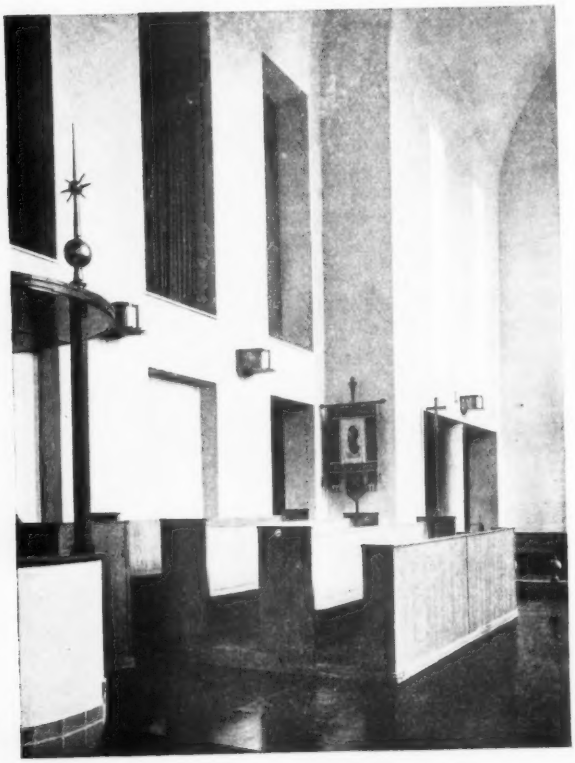
The consulting engineer was Mr. E. W. Cooke, A.M.I.C.E., M.I.S.E.

The photographs have been lent by *Architecture Illustrated.*

CONTRACTORS AND SUPPLIERS

General Contractors : Walden & Son.

Heating : Ariel Chase. *Electrical Installation :* G. W. Franklin & Son. *Electric Fittings and Ironwork :* The Tudor Art Metal Co. *Marble Paving :* Anselm Odling & Sons. *Choir Stalls, Pews etc. :* Geo. Hammer and Co., Ltd. *Panelling in Lady Chapel :* D. Burkle and Son Ltd. *Acoustic Plaster :* Newalls Insulation Co., Ltd. *Steel Windows :* R. E. Pearse & Co., Ltd. *Locks :* Dryad, Leicester (Metal Works). *Fabrics :* Elsa Booth.



Left: Part of the choir showing the plain oak stalls. The openings to the organ loft above, at present filled with net curtains, are to have grilles at a future date. The buff tile skirting which is at the base of all internal walls is seen on the left

Right: The Lady Chapel, which has been presented as a memorial by the London Rifle Brigade. The chapel is attractively panelled in oak plywood, inset with walnut and bordered with strips painted sealing-wax red. The light brackets are gilt. The altar is in tones of blue and cream with a little red

Book Reviews

THE FABRIC OF MODERN BUILDINGS*

The title of this excellent book well expresses the contents and purpose. As one would expect from the head of a department of building in a technical school, the author looks at his subject with the eye of a builder. He is not particularly concerned with the reasons *why* architects adopt certain forms of structure (some of which are inconsistent and many extravagant), but rather with *how* they are built. Modern building methods are therefore discussed and illustrated with great catholicity of outlook. One finds the thin and economical structures of the modern architect but a few pages away from the elaborate devices for hanging lumps of stone detail on to framed buildings, to which the older school of thought is still addicted. For instance, after an interesting, illustrated discourse on external skins of buildings and the pursuit of light dead loads, one finds (on page 77) a "section through an entablature attached to reinforced concrete" which shows no fewer than ten hooks and two R.S.J.s—a particularly gross example of elaborately constructed decoration, and poor decoration at that. But this is a criticism of architects rather than of Mr. Warland's book.

The book's principal feature is a great number of excellent isometric drawings, many of which dissect the most elaborate constructions in a way that is instantly apparent to the reader. Some of these drawings have appeared in the pages of *Building*, and it is not difficult to recognise the actual buildings from which many of them are taken, though in no case is there definite attribution. Those who know something of the sheer labour of drawing a single complicated structural isometric will be impressed by the fact that the book contains 150 of them. Mr. Warland is undoubtedly the leading exponent of this type of draughtsmanship—a useful characteristic in a man whose job it is to explain building to students. Schools of architecture and building could do worse than obtain permission to make enlarged photostat copies of some of these drawings to hang on their walls.

There are ten chapters. The first two deal with foundations and general work at the bases of buildings, including retaining walls, areas, stanchion bases, footings, etc. The author avoids structural theory except in general terms sufficient to explain why certain things are done. Chapter III, "Construction of Walls," occupies nearly one-third of the whole book, and deals thoroughly with all, or nearly all, the present-day combinations of materials used in building walls, whether solid, framed and panelled, or monolithic. Chapter IV discusses damp-proofing; Chapter V is a thorough analysis of floor construction, again from the building or assembly point of view; and Chapters VI and VII deal with roof and partition construction respectively. Fire-proofing and sound-proofing are the subjects of the next two chapters. In these the author may be mildly censored for his use of the term "sound-proof." While he points out that there is really no such thing as a "fire-proof" structure (hence the general use of the term "fire-resisting"), he fails to note that exactly the same applies to sound insulation. Indeed, some of the constructions he illustrates would only slightly reduce the normal noises such as those of foot impact or machinery in such buildings as hotels and blocks of flats. Nor does he point out that in the present state of research the methods illustrated are almost entirely empirical, and that in sound insulation there is as yet no certain relation between results obtained and money expended.

The last chapter, which could with advantage have been longer, deals with the influence of heating, ventilation and lighting on the building of structures. The viewpoint is that of accommodating the necessary piping or ducting in the structure. When it is realised that to-day a structural floor, in addition to being fire-resisting, may have to contain provision for panel heating and the thermal insulation above it, sound insulation, accessible lighting conduit and even ventilation trunking as well, it becomes apparent that this subject is almost worthy of a book to itself.

Mr. Warland's book should be of particular value to the architectural student, provided he remembers that the author is not concerned with architectural design as such, and also in the architect's office, where it will be of use in detailing.

**The Fabric of Modern Buildings.* By E. G. Warland. Sir Isaac Pitman & Sons, Ltd. £1.

THE ITALIAN SCENE*

PROFESSOR W. G. HOLFORD [*A.*]

These three volumes, which consist of a selection of the photographs exhibited at the last Triennale at Milan, together with editorial introductions and indices, illustrate very forcibly an architectural truth, namely, that the strongest ally that architects, photographers and artists in Italy possess is the sun itself. Years ago travellers returned from the Grand Tour with a vision of the nobility of buildings seen under a Southern sky, with measured drawings and sketches of ornament and detail that required a strong shadow or a reflected light to set them to advantage, with actual examples of ceramics and sculpture, and with their imagination stimulated by the whole range of Mediterranean plastics. Back in England these objects found a different background, these

**Nuova Architettura Italiana.* By Agnoldomenico Pica. 4to. 412 pp. Milan, Hoepli, 1936. 17s. 6d.

Tecnica dell 'Abitazione. By Giuseppe Pagano. 4to. 148 pp. Milan, Hoepli, 1936. 8s.

Architettura Rurale Italiana. By Giuseppe Pagano. 4to, 142 pp. Milan, Hoepli. 1936. 6s.

ideas a strange and imperfect realisation ; they underwent a metamorphosis of light, and their total effect was unlike anything that Italy or Greece had ever seen. From the Earl of Burlington's villa to the marble tombstones brought home by Devonshire seamen for Devonshire farmers' wives the romance and culture of a different soil and a different climate were introduced into these islands.

To-day the photographer's art has added another link to this tradition. Modern architecture is made evident, advertised, and made part of the popular conception of art by new processes of reproduction. No longer do architect and client need to voyage to the Mediterranean to bring home some treasured detail of classical or Renaissance design. Their intermediary is the photographer and the publisher. A book of photographs of Italy or Greece, taken under favourable conditions of light and from a dramatic viewpoint, is quite sufficient to stimulate the instinct for emulation. So closely allied are these two branches of the visual art that, whereas we once suffered from the literary fallacy in architecture, we are now more likely to suffer from a photographic one.

These three volumes of photographs, reproduced from those exhibited at the last Triennale in Milan, collected and edited with great pride and enthusiasm, and offered as a convincing demonstration of the new environment that is being created in *Italia Fascista*, are dramatic examples of this new branch of the art of propaganda. The photographs themselves are fascinating ; they charm the eye with their luminosity, their originality and their vitality as abstract patterns in themselves. The theories behind them, justifying their selection and tracing most of their virtues to the inspiration of the totalitarian state, are not so convincing. To me the most incontrovertible truth made evident by this demonstration of building in all its forms is the optical truth that all great architects have realised since the days of the pyramids—that simple geometrical forms, of pleasing colour and texture, arising out of structural necessity, clothing it without pretension, and adapted to the human scale, are the most satisfying and the most dignified forms that man can erect on the face of the earth. I have often been struck by the way in which a single cell, with four walls and a flat or vaulted roof, a door, a window, and a few steps, is transformed under a Mediterranean sun into a significant piece of architecture. Cottages and huts in Capri or Amalfi have this advantage over parallel types seen on the Great West Road or in Lancashire, that they achieve a sculpturesque quality, a vividness of the third dimension, altogether lacking in a country where the light is misty, diffused or smoke-filtered, and where architectural significance is achieved in another tradition altogether.

This optical or plastic truth is evident in every page of illustrations contained in these three books. It is as old as architecture itself, and does not date from the March on Rome. Nevertheless the Italian State can claim considerable credit for commissioning its architects to apply it on such a wide scale and with all the resources of modern technics. Here and there one finds an illustration of a building in which the human philosophy has been entirely subordinated to a limited political philosophy. These buildings, including most of Italy's more recent memorials and monuments, parts of the University of Rome, political clubs and training centres, and the buildings of the Fascist Exhibition, are impressive, grim, and insensitive ; and share with such buildings as that of the new Air Ministry in Berlin a characteristic inhumanity. They have a curious prison-like quality which recalls the architecture of Imperial Rome shorn of all decadent Greek ornament, shorn of capitals and mouldings, shorn of everything but a sort of naked brutality, and the *fasces* and hatchets on the walls.

In less monumental works the human scale and the infinite varieties of human invention reassert themselves. Some of the houses, the recreation buildings, the swimming baths, the refuges, the small factories, and the structures associated with shipping, motoring, and other forms of transport, are contemporary in the very best sense—the sense that implies a permanent human significance. They are simple, imaginative and gay. Impossible in any other century, they are nevertheless in sympathy with Italian architecture of the past. Perhaps the most striking examples are those to be found in the book dealing with farmhouses and country buildings. This gives a fascinating review of rural shapes and forms evolved from the primitive processes of agriculture. A whole history of building is contained in these pages. The round and oval hut on the one hand, the square hut on the other, both evolved from a simple tent-like covering of hay, are traced throughout their evolution into the complex structures of to-day. The beginnings of post-and-beam architecture, of the corbel and the vault and the dome, of the wooden or steel frame, of the concrete cantilever, are all implicit in this survey of simple farm buildings. The process of evolution has not been carried far enough forward. Even to-day the rural housing in Italy is primitive to a degree. Just as the peasant is content for his midday meal with bread and wine and olives and a rest in the sun, so he must be content with the most elementary form of dwelling. But his brother in the town has now gained a glimpse of a much higher standard of living (to which the book on interior decoration and furniture bears witness), and there is some danger of the difference between them being accentuated instead of reduced. For this reason it is interesting to find in an architectural exhibition both sides of the national economy being so carefully explored.

It is perfectly evident that the architect in Italy (and much more so than in Germany) is being given a great chance to exercise his skill to the full. He has been given by the State a large measure of work to accomplish ; a measure that we in this country must procure largely for ourselves.

STABLES AND KENNELS

SPORTING STABLES AND KENNELS. *By Richard V. N. Gambrill and James C. Mackenzie. Sm. fo. 139 pp. + 138 plates. London : Eyre & Spottiswoode.*

It is a little difficult to assess the real value of this book to an English architect called upon to design a stable for the first time.

Economic conditions, climate and social contacts are notably very different in America, and it would be unwise to accept many of the recommendations without verification from those experienced in horse and hound management in this country.

Broadly speaking and making allowance for the social and climatic differences, most of the illustrations show designs conceived more in the spirit of stable building for rich country gentlemen in this country, carried out in the spacious days of the end of the last century and early years of this.

The book is delightfully illustrated, and the architectural quality of almost every design is undoubted.

Most of the stables shown are clearly built for wealthy owners, to whom cost was a secondary consideration, and full advantage has certainly been taken of this fact. The authors of the book must be congratulated on a very charming and beautifully got-up publication.

A few examples of English stables are given, and perhaps attention should be drawn to the illustrations of Mr. Herbert Cox's stable at Malmesbury, Wiltshire. This is apparently a conversion of existing farm buildings, of typically local character, and is quite definitely representative of the simpler and less costly methods now prevalent in this country. No plan is given, but the principle of boxes ranged round a court-yard and opening direct into the open air is a very popular method to-day for hunting stables. It should be noted that ridge ventilation is provided to every box.

Coming to matters of detail, American practice appears to differ from English methods, and to be less simple. As a rule, if possible, we avoid placing fodder stores immediately over boxes and stalls, while the authors of this book strongly recommend storing hay above boxes, and even feeding direct into each box—a practice which, in the present writer's belief, is now largely discontinued.

Ventilation, on which subject a great deal might be said, and which is all-important in buildings in which animals are housed, appears to be a somewhat haphazard proceeding. The most important thing is to prevent down-draughts on to a horse's back, and to ensure this there must be adequate extract ridge ventilation, preferably dispersed over a wide area, rather than concentrated at specified points. Various methods can be adopted so long as the prevention of down-draught is assured.

The system of horse-box drainage, advocated by pot drains in the centre of the box, has long been discarded, and would not be tolerated by most animal husbandry experts in this country.

The reviewer has no special knowledge of hound kennels, but, from experience gained in designing and carrying out the rebuilding of the Royal Veterinary College in London, it would appear that there are many modern methods now being applied to greyhound kennels and canine wards, the study of which would be invaluable to any architect asked to design new kennels.

In conclusion, it may be said that the design of buildings for animals is a specialised job. Methods and requirements have changed and are changing as the science of animal husbandry gathers fresh information with regard to the health and well-being of all manner of domestic animals. There is, too, a wealth of experience in horse and hound management in England, and while books such as the one under review are valuable and stimulating in many ways, they cannot take the place of advice from practical experts.

H. P. G. Maule [*F.*]

ROMAN BAROQUE

Baroque Painting in Rome: The Seventeenth Century. *By Ellis K. Waterhouse. 4to. xii+104 pp.+42 plates. London: Macmillan, for Brit. Sch., Rome. 1937. n.p.*

There are two sorts of art criticism. There is one kind which tells the reader emphatically what he is to admire and infers that he is ignorant and unappreciative if he does not agree. To this category belong Ruskin's writings. There is another kind which furnishes the reader with all the necessary information, guides him gently in matters which are hardly controversial, but generally speaking leaves him to form his own opinions. Mr. Waterhouse's book is of the latter kind.

The seventeenth century in Rome was a period of feverish artistic activity. Its productions probably exceed in sheer numbers those of all the other periods represented in Rome. But hitherto it has been neglected. Mr. Waterhouse's book represents the boiled down essence of years of study. Everyone who has visited Rome knows the rows of altar-pieces, the acres of frescoed ceiling all equally anonymous. But from now onwards a study of seventeenth century art in Rome need not involve any great degree of research. The work has all been done by Mr. Waterhouse, and to all lovers of Baroque Art his book will not be only useful, it will be indispensable.

When so much is offered it seems ungrateful to cavil at omissions. But it is to be regretted that Mr. Waterhouse has intentionally excluded Domenichino, whose frescoes at Sant' Andrea della Valle and in the Greek Convent at Grotta Ferrata are among the most important of the period. He is also hardly fair to Borromini, who is scarcely mentioned, whereas ample justice is done to the influence of Bernini, though, like Borromini, he was no painter. Mr. Waterhouse even states that Bernini retained his undisputed predominance at the Papal Court in the time of Innocent X, whereas during this Pontificate Bernini fell into complete disgrace owing to the collapse of his campanile on the west front of St. Peter's, and Borromini stepped into his place as the chief architect to the Pope.

But the omission of names relatively well known is unimportant compared with the discovery and rehabilitation of forgotten artists like, for instance, Francesco Cozza, and this noble work Mr. Waterhouse has certainly accomplished.

NORFOLK WEATHER VANES

The Weather Vanes of Norfolk and Norwich. *By Claude J. W. Messent, A.R.I.B.A. Sm. 8vo. 124 pp. Norwich: Fletcher & Son. 1937. 3s. 6d.*

Mr. Messent has made the most entertaining and instructive survey of one hundred and twelve Norfolk weather vanes which should give pleasure to readers far beyond the county in which they are. In date his subjects extend from the seventeenth century to 1934, the most recent vane being that on the Norwich fire station. Only six cocks are illustrated, but almost every other domestic bird and beast appears in grotesque and charming form: there are ploughs, motor-cars, tractors, scenes of rural life and a school-master teaching geography. A generous choice which Mr. Messent has obviously enjoyed making. In his drawings he has represented sympathetically the naivety of the originals and his brief descriptions are always to the point.

THE WORK OF A FAMOUS BUILDING FIRM

Building and Engineering Works [carried out by the firm of John Laing & Son, Ltd.]. *ob. fo., 164 pp. 1937. n.p.*

This is a pictorial record of the recent work of John Laing & Sons, Ltd., prefaced by a short history. The firm was established in 1848. Among the works illustrated are hospitals, including the Middlesex County Hospital, many schools, churches and memorials, factories, military buildings and business houses and flats and private houses, large and small. The record is an interesting survey of the quality, variety and quantity of work that has come the way of one firm.

Accessions to the Library

1936-1937—XI

Lists of all books, pamphlets, drawings and photographs presented to, or purchased by, the Library are published periodically. It is suggested that members who wish to be in close touch with the development of the Library should make a point of retaining these lists for reference.

Any notes which appear in the lists are published without prejudice to a further and more detailed criticism.

Books presented by publisher for review marked R.
Books purchased marked P.
**Books of which there is at least one copy in the Loan Library.*

ARCHITECTURE

Year-books, &c. :—

SCHWEIZERISCHER INGENIEUR- UND ARCHITEKTEN-VEREIN
Offizielles mitglieder-verzeichnis. 1937. R.

EDUCATION

KNIGHT (C. R.)
Architectural education in the British Empire. A report, *&c.*
dupl. typescript (printed cover). 13″. Auckland, N.Z. 1937.
Presented by Prof. Knight, the Author.

R.I.B.A.
Examination papers : Intermediate, Final, Special Final. (June-July) 1936.

BRITISH SCHOOL AT ROME
Minutes . . . reports [for 1936-37] *&c.* (July.) 1937. R.

THEORY

GILL (ERIC)
Sculpture on machine-made buildings. A lecture . . . Birmingham and Five Counties Architectural Association.
pam. 8½″. Birmingham : City of B— School of Printing. 1937.
Presented by Mr. Benjamin Walker, F.S.A.

LAY (C. H.)
To Suffolk. A poem *&c.*
7¼″. (iv)+4 pp. Lond. : St. Catherine Press. [1937.]
Presented by the Author [*F.*].

PRESERVATION

SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS
Annual report : 60th [on 1936-37]. 1937. 2s. 6d. R.

HISTORY

VICTORIA HISTORY OF THE COUNTIES OF ENGLAND
——. (University of London : Institute of Historical Research.)
The V— h— of the county of Northampton. L. F. Salzman, ed.
Vol. iv. 1937. £3 3s. R.
The V— h— of the county of Sussex. L. F. Salzman, ed.
Vol. ix. 1937. £2 2s. R.
—— each 12″. Lond. : O.U.P. 19—.

PROFESSIONAL PRACTICE

MINISTRY OF HEALTH
Rating and Valuation Act, 1925. Rating of machinery. Panel of referees. (Circular 1645.)
leaflet. 9¾″. Lond. : H.M.S.O. 1937. 1d. R.

Model bye-laws.
*Series iv. Buildings.
13″. Lond. : H.M.S.O. 1937. 1s. 6d. R.

LINTON (OTTO)
Ingenjörers arkitektutbildning och arkitekters ingenjörsutbildning. [Engineers' and architects' mutual influence.]
pam. 11¾″. [Bornholm. 1937.]
Presented by Prof. Otto Linton.

DAVIES (T. R. D.)
"The Standard form of building sub-contract," being an annotation of the new form . . . (issued in 1936 under the sanction of the National Federation of Building Trades Employers and the National Federation of Specialists and Sub-Contractors . . .) *&c.*
13″. (ii)+72 pp. Lond. : Federated Employers' Press. [1937.] R.

ARCHITECTS' REGISTRATION COUNCIL OF THE UNITED KINGDOM
Calendar. 1937-38.
8½″. Lond. 1937.

BUILDING TYPES
(CIVIL)

PRACTITIONER, *journal*
Extra number . . . on the new building, 5 Bentinck Street, W.1. [With articles by C. H. Reilly, Walter Goodesmith, and others.]
9½″. Lond. 1937. 1s. R.

LEGGETT (A. R. E.)
The Site requirements, planning and equipment of the modern confectionery and bread bakery. (Thesis for Final Examination, July.)
typescript and *Repr. of Ink D.* 13″. 1937.
Presented by the Author.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH : FOREST PRODUCTS RESEARCH
Records :—
No. 19 (Seasoning series No. 4). Methods of kiln operation. R. G. Bateson.
pam. 9½″. Lond. : H.M.S.O. 1937. 6d. R.

ARCHITECTS' JOURNAL
*[Special issue : Hospitals.] (24 June.)
12¼″. Lond. 1937. 1s. P.
To Loan Library.

DOWSEY (A. E.)
The History, development and planning of ante-natal and child welfare clinics. (Thesis for Final Examination, July.)
typescript, *Repr.* and *Phots.* 13″. 1937.
Presented by the Author.

MOSS (GEOFFREY)
The Design and equipment of repertory theatres. (Thesis for Final Examination, July.)
typescript and *Repr. of D.* 13″. 1937.
Presented by the Author.

MARTIN (D. G.)
The Planning and equipment of the cinema. (Thesis for Final Examination, July.)
typescript and *Ink D.* 13″. 1937.
Presented by the Author.

NATIONAL COUNCIL OF SOCIAL SERVICE
Voluntary service. 17th Annual report. . . .
9½″. Lond. 1937. 1s. R.

BRITTAIN (FELIX), *editor*
Olympia [exhibition bldg., Kensington]. A souvenir review commemorating the golden jubilee 1887-1937. (Olympia Ltd.)
11″. 92 pp. incl. some advts. Lond. & Cheltenham : E. J. Burrow. 1937. R.

EXPOSITION INTERNATIONALE, *Paris,* 1937
Guide des objets exposés dans le Pavillon du Royaume Uni.
9¾″. 610 pp. [Paris. 1937.] R.

POPE (A. UPHAM)
In defense of the Jefferson Memorial. (*From* Magazine of Art. June.)
pam. 12¼″. n.p. 1937.
Presented by Dr. Upham Pope.

WARE (FABIAN)
The Immortal heritage. An Account of the work and policy of the Imperial War Graves Commission during . . . 1917-1937. 8″ × 6″. 61 pp. + pls. Cambridge : U.P. 1937. 2s. 6d. R.

(EDUCATIONAL)

WHIPPLE (A. H.)
The William Crane School [City of Nottingham]. Some account of a rural college in a town setting.
9¾″. (4) + 46 pp. [Nottingham. after 1933.]
Presented through the Exhibition Sub-Committee.

BLANK (SIDNEY)
Design, planning, and equipment of elementary schools. (Thesis for Final Examination, July.)
typescript and *Pencil D.* 13″. 1937.
Presented by the Author.

SQUIRE (*Sir* JOHN)
The Hall of the Institute of Chartered Accountants in England and Wales.
11¼″ × 9″. var. pp. + pls. Lond. 1937.
Presented by the Institute.

(DOMESTIC)

HOUSING CENTRE
Annual general report : Second. 1936-37. 1937. R.

MINISTRY OF HEALTH
Housing Acts, 1935 and 1936, Housing (Rural Workers) Acts, and Small Dwellings Acquisition Acts. Interest on loans, etc.
leaflet. 9¾″. Lond. : H.M.S.O. 1937. 1d. R.

Local government financial statistics . . . 1934-35.
Part ii : local authorities in London and county boroughs. Pt. iii : I— a— in administrative counties outside London, with a summary for . . . England and Wales.
each 9¾″. Lond. : H.M.S.O. 1937. 3s. 6d., 1s. 6d. R.

GREAT BRITAIN : PARLIAMENT—ACTS
Housing (Scotland) Act, 1930. [20 & 21 Geo. 5. ch. 40.]
9¾″. Lond. : H.M.S.O. 1930. 1s. P.

D.S.I.R. : BUILDING RESEARCH STATION LIBRARY
Health and comfort in housing. Lists—.[Heating and ventilation.] Bibliog. No. 39-16, 17. 1937.
Presented by the London School of Hygiene and Tropical Medicine.

MINISTRY OF HEALTH : DEPARTMENTAL COMMITTEE ON THE CONSTRUCTION OF FLATS FOR THE WORKING CLASSES
Construction of flats for the working classes. Final report *&c.*
9¾″. Lond. : H.M.S.O. 1937. 1s. R.

COMPAGNIE PARISIENNE DE DISTRIBUTION D'ÉLECTRICITÉ
Le Nouvel immeuble "Vienne-Rocher" (siège social). (*From* Travaux, *journal*, Aug.)
12″ × 9¼″. var. pp. n.p. 1935. R.

SMITH (ARTHUR LLEWELLYN)
*Buildings for boys' clubs. (National Association of Boys' Clubs. Boys' Club handbook No. 9.)
8½″. 72 pp. Lond. 1937. 2s.
Presented (3) *by the Author* [*A.*].

SCOTLAND : DEPARTMENT OF HEALTH FOR SCOTLAND
Housing (Scotland) Act, 1930. Memorandum . . . with respect to the provision of hostel accommodation for single persons.
leaflet. 9¾″. Edin. : H.M.S.O. 1935. 1d. P.

JACOBS (EDGAR)
Mecklenburgische nerrenhöfe. Dissertation . . . Technischen Hochschule, Berlin . . . 1936.
8¼″. 64 pp. + pls. n.p. 1937.
Presented by the Librarian of the Patent Office.

MEYNELL (ESTHER)
Building a cottage *&c.*
7¾″. 236 pp. Lond. : Chapman & Hall. 1937. 7s. 6d. R.

PITE (H. S.)
Modern kitchen planning and equipment. (Thesis for Final Examination, July.)
typescript, *Repr. of D. & of Phot.* 12¾″. 1937.
Presented by the Author.

WILLIAMS (I. M.)
Dairy farms and buildings connected with the dairying industry. (Thesis for Final Examination, July.)
typescript & *Repr. of D.* and *Phots.* in pocket. 13″. [1937.]
Presented by the Author.

DETAILS, CRAFTS

STEVENS (K. A.)
The Development of woodwork for building purposes and its use in modern construction.
typescript, *Repr. of D.*, and *Phots.* 10½″. 1937.
Presented by the Author.

ALDEN (MURIEL)
The External wall in architecture. [(Thesis for Final Examination, July.)
typescript, *Ink D. & Phot.* 13″. 1937.
Presented by the Author.

ALLIED ARTS AND ARCHÆOLOGY

PARIS : INSTITUT DE FRANCE—ACADEMIE DES BEAUX-ARTS
Bulletin semestriel. Nos. 21-24. (11e-12e année.)
1935-36.

UNIVERSITY OF LONDON : COURTAULD INSTITUTE OF ART
Annual bibliography of the history of British art. ii, 1935.
Camb. : U.P. 1937. R.

BRITISH BROADCASTING CORPORATION
Design in everyday things. By Anthony Bertram. [Talks pamphlet.]
pam. 8½″. Lond. 1937. 8d. R

WATERHOUSE (E. K.)
Baroque painting in Rome. The seventeenth century. (British School at Rome.)
10″. xi + 103 pp. + xlii pls. Lond. : Macmillan. 1937. 15s. R.

ASSOCIATED ARCHITECTURAL SOCIETIES
Reports and papers . . . 1934 and 1835. Vol. xlii, pt. ii.
1937. R.

SOCIÉTÉ FRANÇAISE D'ARCHÉOLOGIE
Congrès archéologique de France. XCVIIIe session tenue à Lyon et Mâcon en 1935. 1936. R.

HYDERABAD : ARCHÆOLOGICAL DEPARTMENT
Annual report . . . [on] 1933-34.
1936. R.

BUILDING SCIENCE

BRITISH STANDARDS INSTITUTION
Schedule of B— s— specifications applicable to building works, *&c.* (C.D. 4000—1936.)
8½″. Lond. 1936. 6d.

D.S.I.R. : BUILDING RESEARCH BOARD
*Report . . . for the year 1936.
1937. 4s. R (2).

AMERICAN INSTITUTE OF ARCHITECTS
Standard filing system for filing information on building materials and appliances. *With* Alphabetical index. (A.I.A. Document No. 172.)
[New ed.] 11″. Washington. 1937. ($1.00.) R.

APPARATUS

ANDREWS (P. M.)
Steel scaffolding. [Paper and discussion.] (*From* the Structural Engineer, Dec. and Mar.)
2 extracts. 10¼″. Lond. 1936-37.
Presented by the Author [*A.*].

Materials

EMPIRE FORESTRY ASSOCIATION
Empire Forestry Journal. Vol. 16, No. 1, 1937. 1937. R.
——Index to Vol. 15, 1936. [1937.] R.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH: FOREST PRODUCTS RESEARCH
Bulletins:
No. 17. Methods of bending wood by hand. W. C. Stevens and N. Turner.
pam. 9¾″. Lond.: H.M.S.O. 1937. 1s. R.

ARCHITECTURAL REVIEW
*[Special issue:] Metals. (June.)
13¾″. Lond. 1937. 2s. P (2).
To Loan Library.

Construction

CLARK (D. J.)
Stonework and its application to building. (Thesis for Final Examination, July.)
typescript, *Ink D.* and extracts. 12¾″. 1937.
Presented by the Author.

Sanitary Science, Equipment and Proofing

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH: ILLUMINATION RESEARCH
Technical papers:
No. 19. Daylight illumination necessary for clerical work. L. H. McDermott.
9¾″. Lond.: H.M.S.O. 1937. 6d. R.

THOMPSON (BENJAMIN), *Count* RUMFORD
Essay on chimney fireplaces. (Abridgement and note on practical application by A. F. Dufton. D.S.I.R.: Bg. Research Board.) (*From* The Builder, 23 July.)
leaflet. 12¾″. [Lond.] (1796) 1937.

MORREAU (C. J.)
The Transmission of air-borne sound by composite partitions. (*From* Engineering, 13 Aug.)
leaflet. 11″×8½″. Lond. 1937. R.

ENGINEERING

INSTITUTION OF CIVIL ENGINEERS
Minutes of proceedings. Vol. 240. 1937. R.

TOPOGRAPHY

HARRIS (G. W.)
Reminiscences of four years sojourn in Cambridge.
6¾″. priv. prin. Harlesden. 1937.
Presented by the Author, M.I.C.W.A.

SHELL GUIDES
Bucks. By John Nash. With notes on monuments by Katherine A. Esdaile.
Northumberland & Durham. By Thomas Sharp.
—— each 9″×7″. Lond.: Batsford. [193—.] 2s. 6d. R.

COHEN-PORTHEIM (PAUL)
The Spirit of Paris. [Trans. from German by Alan Harris.]
8½″. x+118 pp.+pls. Lond.: Batsford. 1937. 7s. 6d. R.

TOWN AND COUNTRY PLANNING, GARDENS, AND RURAL PRESERVATION

FYLDE REGION JOINT TOWN PLANNING ADVISORY COMMITTEE
Amounderness [Hundred, Lancashire]. Being the report *&c.* By T. H. Mawson and Son and James Crossland.
12¼″×9¾″. xxi+232 pp. + front. +27 pls. and folding maps. Lond.: Batsford. 1937. £1 1s. R.

LAVEDAN (PIERRE)
Géographie des villes.
9″. 206 pp.+xxxii pls. Paris: Gallimard. [1936.] (6s.) P.

MINISTRY OF HEALTH
Town and Country Planning Act, 1932. Approval of planning scheme.—Borough of Ealing. E— (Northolt) Planning Scheme.
9¾″. [Lond.] 1937. R.

MINISTRY OF TRANSPORT
Restriction of Ribbon Development Act 1935. Review of decisions . . . to 30 June 1937 on appeals *&c.*
9¾″. Lond.: H.M.S.O. 1937. 2s. P.

GREATER LONDON REGIONAL PLANNING COMMITTEE
The Green belt round London.
leaflet. 10¼″. Lond. 1934.

HAMPSTEAD GARDEN SUBURB TRUST, *Ltd.*
The Hampstead Garden Suburb. Its achievements and significance.
9¾″. 30 pp.+map in pocket. [Hampstead. 1937.] R.

ARCHITECTURAL REVIEW, *journal*
*[Special issue.] Roads. (Apl.) (Reprinted by British Road Federation.)
14″×11″. Lond. 1937.
Presented by the Federation.

COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND *and* ROADS BEAUTIFYING ASSOCIATION: TRUNK ROADS JOINT COMMITTEE
* Report.
9¾″. (ii)+36 pp.+pls.+2 folding maps. Lond.: C.P.R.E. 1937. 1s. 6d.
Presented (2) *by the Council.*

DOUGILL (WESLEY)
The Recent developments at the seaside resorts of north-west Europe and of Italy. (Godwin and Wimperis Bursary 1935, report.)
typescript, *Repr. & Phots. of D.* 12¾″×10½″. [1937.]
Presented by the Author, M.A., B.ARCH. [*A.*].

SMITH (C. G.)
House and garden. (Thesis for Final Examination, July.)
typescript, *Repr. of Ink D.*, and *Phots.* 13″. 1937.
Presented by the Author.

SCAPA SOCIETY
Annual report for 1936. [1937.] R.

NATIONAL TRUST
Report 1936-1937. 1937.
Freehold and leasehold properties *&c.* 1937.
Presented by Mrs. Beach.

FRIENDS OF THE LAKE DISTRICT
Make the Lake District a national park. An appeal *&c.*
pam. 8½″. [Ambleside. 1937.] R.

GREAT BRITAIN: PARLIAMENT—ACTS
Bath Corporation Act 1937. [With section, Improvement provisions, including working of advisory panels.]
13½″. Bath: Corpn. 1937. R.

DRAWINGS, PRINTS AND PHOTOGRAPHS

INDUSTRY OF ALL NATIONS EXHIBITION ("Great Exhibition"), *London,* 1851
Exhibition: int. views. J[oseph] Nash and unsigned.
55 sheets. (Framed.) *Chromolithographs.* [185—.] (£10.) P.

ARCHITECTURE D'AUJOURD'HUI, *journal*
Paris moderne et la région parisienne 1937. Cartes des constructions d'esprit moderne les plus caractéristiques *&c.*
folding map in case, 12¾″×5¼″. Paris. [1937.] (10 fr.) R.

BURGHLEY HOUSE, *Stamford*
——. North front. [Contemporary sepia drawing.]
D. [15—.]
Presented by Mr. W. J. A. Osburn [*A.*] *through Mr. G. B. Tubbs* [*A.*].

Review of Periodicals

Attempt is made in this review to refer to the more important articles in all the journals received by the Library. None of the journals mentioned are in the Loan Library, but the Librarian will be pleased to give information about price and where each journal can be obtained. Members can have photostat copies of particular articles made at their own cost on application to the Librarian.

SCHOOLS

BUILDER. *1937. 8 October. P. 641.*
Mill End Senior Schools, High Wycombe, by Thurlow and Lucas [*L.*].

ARKITEKTEN (COPENHAGEN). *1937. No. 5. P. 78.*
School in Suresnes, by Beaudouin and Lods.

FORUM (BRATISLAVA). *1937. No. 9. P. 153.*
New schools in Brünn.

KENTIKU SEKAI (TOKYO). *1937. July. P. 12.*
Primary school at Kurami.

UNIVERSITIES

IRISH BUILDER AND ENGINEER. *1937. 18 September. P. 819.*
New Reading Room, Trinity College, Dublin, by Sir Thomas Manley Deane.

KENTIKU ZASSI (TOKYO). *1937. August. P. 1069.*
The Naval Hall, the National Gymnasium and the New Hospital, Tokyo Imperial University.

MUSEUMS AND EXHIBITIONS

ARCHITECT AND BUILDING NEWS. *1937. P. 23.*
The Avery Memorial, Hertford (U.S.A.), Art Gallery and auditorium.

PENCIL POINTS (NEW YORK). *1937. September. P. 540.*
Important exhibition buildings, by W. D. Teague.

ARCHITECTURAL FORUM (NEW YORK). *1937. September. P. 159.*
Paris, 1937. A survey of the Exhibition, by Henry-Russell Hitchcock.

CONSTRUCTION MODERNE (PARIS). *1937. 12 September. P. 794.*
Trocadéro Aquarium, by Roger Lardat.

ARCHITEKTURA I BUDOWNICTWO (WARSAW). *1937. No. 6. P. 211.*

L'ARCHITECTURE D'AUJOURD'HUI (PARIS). *1937. August. P. 26.*
The Polish Pavilion, Paris Exhibition, 1937.

L'ARCHITECTURE D'AUJOURD'HUI (PARIS). *1937. August. P. 3.*
Replies to the questionnaire addressed to public men, architects and art critics on the subject of the 1937 Exhibition. A number of individual pavilions are described and illustrated.

CONSTRUCTION MODERNE (PARIS). *1937. 12 September. P. 781.*
Paris Exhibition. The "Porte de l'Alma," by M. Solotareff. Massive construction in timber, of bridges and twin towers.

LIBRARIES

THE LIBRARY ASSOCIATION RECORD. *1937. September. P. 473.*
The League of Nations Library, Geneva.

ARCHITECTURAL ASSOCIATION JOURNAL. *1937. September. P.156.*
New library, University College, Swansea, by Verner O. Rees [*F.*].

INSTITUTIONAL

BUILDER. *1937. 24 September. P. 549.*
Headquarters for the Union of Post Office Workers, by L. A. Culliford & Partners [*F.*].

BAUKUNST (BERLIN). *1937. September. P. 289.*
The new Reichsbank, Berlin, by Heinrich Wolff.

GOVERNMENT

BAUKUNST (BERLIN). *1937. September. P. 313.*

BAUWELT (BERLIN). *1937. 2 September. Inset. P. 1.*
"Das Zeppelinfeld" at Nürnberg. Monumental arena, by A. Speer, for the massed gatherings of the Nazi party.

LA CONSTRUCTION MODERNE (PARIS). *1937. 26 September. P. 806.*
French Legation at Belgrade, by R. Expert.

CIVIC

BUILDER. *1937. 8 October. P. 631.*

ARCHITECT AND BUILDING NEWS. *1937. 8 October. P. 38.*

ARCHITECTS' JOURNAL. *1937. 7 October. P. 537.*
New municipal buildings Stoke Newington, by R. Truelove [*A.*].

ARCHITECT AND BUILDING NEWS. *1937. 1 October. P. 11.*
Romford Town Hall, by Collins & Geens [*F., A.*].

BAUGILDE (BERLIN). *1937. 15 September. P. 885.*
The proposed Adolf Hitler Platz in Weimar.

KENTIKU SEKAI (TOKYO). *1937. July. P. 1.*
City Hall, Ube, by T. Murano. Monumental modernism.

MEMORIALS

ARKADY (WARSAW). *1937. No. 9. P. 443.*
Seventeen Competition models of designs for memorial to Marshal Pilsudski.

HOTELS AND RESTAURANTS

ARCHITECTURE ILLUSTRATED. *1937. September. P. 94.*
Licensed premises, Edgware, by Dawe & Carter [*F., A.*].

ARKKITEHTI (HELSINGFORS). *1937. No. 8. P. 122.*
A hotel in central Finland. 32 guest rooms, by J. Tähtinen.

ARKKITEHTI (HELSINGFORS). *1937. No. 8. P. 116.*
Restaurant, shops and offices, by G. Jägerroos.

KENTIKU SEKAI (TOKYO). *1937. July. P. 22.*
An interesting Japanese restaurant, by K. Isima.

INDUSTRIAL

ARCHITECT AND BUILDING NEWS. *1937. 1 October. P. 16.*
Printing and box factory for the perfumery of Yardley & Co., by Higgins & Thomerson [*LL.*].

BUILDING. *1937. September. P. 371.*
Electroflo works, Park Royal, Wembley, by Adie Button and Partners [*A.*]. First section of an excellent modern factory.

AMERICAN ARCHITECT (NEW YORK). *1937. September. P. 87.*
Factory for General Motors at Linden, New Jersey, by A. Khan.

BAUWELT (BERLIN). *1937. 26 August. Inset. P. 1.*

BAUKUNST (BERLIN). *1937. September. P. 305.*
Excellent modern factory for Hansa-Lloyd-Goliath-Werke, Bremen, by Rudolf Lodders.

INDUSTRIAL DESIGN

PENCIL POINTS (NEW YORK). *1937. September. P. 540.*
Walter Dorwin Teague, industrial designer. As this survey shows his work covers a wide field ; furniture, fabrics, machinery, automobiles, tableware are examples. Buildings include service stations, exhibition buildings and shop fronts.

TRANSPORT

ARCHITECTS' JOURNAL. *1937. 7 October. P. 541.*
ARCHITECT AND BUILDING NEWS. *1937. 8 October. P. 48.*
R.M.S. *Orcades*. Illustrations of the work of Brian O'Rorke [*A.*], architect for the interior of the ship.
THE IRISH BUILDER. *1937. 2 October. P. 861.*
A proposed central 'bus station and car garage for Dublin.
ARCHITECTURAL RECORD (NEW YORK). *1937. September. P. 69.*
Standardised service stations.
ARCHITECT AND BUILDING NEWS. *1937. 1 October. P. 14.*
Article on the working of the Ribbon Development Act, reviewing recent decisions of the Ministry of Transport.
ARKKITEHTI (HELSINGFORS). *1937. No. 7. P. 97.*
Railway station at Tampere, Finland, by Flodin and Seppälä.
JOURNAL OF THE INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. *1937. 28 September. P. 579.*
An article on the development, planning and organisation of the Rand Airport.
TÉR ÉS FORMA (BUDAPEST). *1937. No. 8. P. 213.*
Budapest Airport, by H. Lejos. Fully described and illustrated.

WELFARE

DESIGN AND CONSTRUCTION. *1937. September. P. 417.*
Club house for oil-tanker crews at Stanlow, by K. R. Brady.

HOSPITALS, ETC.

ARCHITECTURE ILLUSTRATED. *1937. September. P. 74.*
Harefield Sanatorium, Middlesex, by W. T. Curtis [*F.*].
ARCHITECTURAL RECORD (NEW YORK). *1937. September. P. 87.*
Building for medical and dental practice. Consulting and treatment rooms, laboratory, etc., by R. M. Schindler.

SPORTS BUILDINGS

BUILDER. *1937. 24 September. PP. 543 and 545.*
Sports pavilion at Ravensbourne for *The Times*, by Ellis and Clarke [*FF.*].
Gorleston-on-Sea holiday camp, by Messrs. Buckingham [*F., L.*].
DESIGN AND CONSTRUCTION. *1937. September. P. 422.*
Reference supplement on Swimming Pools and Sports Buildings. Article by K. M. B. Cross [*F.*] on Planning, Construction and Equipment of Swimming Baths.

RELIGIOUS

R.I.B.A. JOURNAL. *1937. 16 October. P. 1057.*
ARCHITECTURE ILLUSTRATED. *1937. September. P. 70.*
Church of St. Alban, N. Harrow, by A. W. Kenyon [*F.*].
BUILDER. *1937. 24 September. P. 541.*
Methodist church and schools, Neasden, by E. B. Glanfield [*F.*].
MODERNE BAUFORMEN (STUTTGART). *1937. September. P. 454.*
Christ Scientist Church, Basle, by O. R. Salvisberg.

DOMESTIC

ARCHITECT AND BUILDING NEWS. *1937. 24 September. P. 365.*
A pair of houses in St. John's Wood, by D. Stokes [*A.*].
ARCHITECTURAL RECORD (NEW YORK). *1937. September. P. 116.*
" Rumpus " rooms for the private house. Photographs of recreation rooms with sizes of such necessities as bars, billiard tables, punch-ball space, etc.
ARKKITEHTI (HELSINGFORS). *1937. No. 8. P. 113.*
A house for his own use by Alvar Aalto. The building, which is of timber and reinforced concrete, includes a studio and the architect's office.
DOM OSIEDLE MIESZKANIE (WARSAW). *1937. Nos. 4-6. P. 13.*
Small houses in Poland.
ARCHITECT AND BUILDING NEWS. *1937. 24 September. P. 361.*
Article on Working-class Flats, by John Dower [*A.*].
BUILDING. *1937. September. P. 405.*
Demonstration flats, King's Cross, by John Dower [*A.*]. Isometric drawings showing use of steel trim and dovetail sheet steel floor units.
ARKITEKTEN (COPENHAGEN). *1937. No. 5. P. 69.*
La Cité Muette at Drancy, by Beaudouin and Lods.
BYGGE KUNST (OSLO). *1937. No. 8. P. 175.*
Ingenious planning of a block of flats. One access gangway to three floors giving great flexibility of size and arrangement of flats.

EQUIPMENT

ELECTRICAL REVIEW. *1937. 8 October.*
An issue devoted to domestic uses of electricity. A useful reference.
STUDIO. *1937. October. P. 225.*
Basic principles of decorative and efficient lighting, by Maurice Rena.
ARCHITECTURAL RECORD (NEW YORK). *1937. September. P. 113.*
Residential air-conditioning systems.

CONFERENCE REPORT

L'ARCHITECTURE D'AUJOURD'HUI (PARIS). *1937. P. 60.*
Report of the Fourth International Reunion of Architects.

DECORATION

BUILDING TIMES AND STONE TRADES JOURNAL. *1937. September. P. 94.*
Mosaic : a reviving decorative art, by G. C. Rothery. Also an article, by W. A. Bagley, on the mosaics in the German Pavilion at the Paris Exhibition.

HISTORICAL

AMERICAN ARCHITECT (NEW YORK). *1937. September. P. 43.*
Illustrated inset on Pennsylvania barns.

GENERAL

AMERICAN ARCHITECT (NEW YORK). *1937. September. P. 35.*
Architecture in Italy. " — the public no longer considers a building as modern or traditional, but merely as either good or bad architecture." Article by B. Funaro and S. Saltus.
AMERICAN ARCHITECT (NEW YORK). *1937. September. P. 67. Portfolio Inset.*
Wall face dormer windows. A series of drawings and illustrations.
PENCIL POINTS (NEW YORK). *1937. September. P. 573.*
Design possibilities of the small city garden, by G. Eckbo.
AMERICAN ARCHITECT (NEW YORK). *1937. September. P. 93.*
Planning information on public conveniences.
BYGGE KUNST (OSLO). *1937. No. 8. P. 167.*
Vermin. Article on " bed bugs," by G. Haugen.

Obituaries

We regret to record the death of several distinguished Honorary Members of the Institute. Lord Peel [*Hon. F.*] who died on 28 September ; the Dean of Westminster [*Hon. A.*] ; Signor M. E. Cannizzaro, an Honorary Corresponding Member for Italy ; and M. Victor Laloux, Honorary Corresponding Member for France and Royal Gold Medallist in 1929.

FRANK T. VERITY [*F.*]

By H. S. Goodhart-Rendel.

I suppose that most architects can remember some building or picture of a building that first woke their critical sense, that first upset the cocksure preferences of their inexperience. My awakening came when I was fifteen years old, and the *Building News* (to which a kind grandmother had given me a subscription) published a drawing by Professor Adshead entitled " Mansion Flats, Hyde Park Place W. Frank T. Verity, F.R.I.B.A., Archt." How this picture struck me at fifteen could hardly be of interest to anybody if it were not, as I fancy, that the same picture must have struck my elders in the same way, and no doubt more forcibly. Nobody then was building any flats like that in London. Flats that had no gables, no turrets, no visible chimneys, no glazing in small squares. Flats that had six equal storeys allowed to look equal, and in which the only cornice was a large one at the top of the wall.

I recognised those flats as extremely Parisian, and realised for the first time how barbarous Parisian common sense made our common nonsense seem in comparison. In the years immediately after their appearance, Mr. Verity went on being Parisian in other London flats, in those on the site of Thomas's Hotel in Berkeley Square, in two blocks in Portland Place and in another block in Cleveland Row. Last of the series came the big block at the Oxford Street corner of Park Lane, a block that still seems to me to present much the best architecture that can be found in that thoroughfare.

All of these buildings are French, not only in their reasonableness but in their style : their details, although original, suggest the epoch of Louis Seize. There is also a strong French flavour in the neo-Grec façade of the London Polytechnic and in the one realised fragment lower down of Mr. Verity's splendid design for the whole of Regent Street. How a street so imagined by a great artist can have been afterwards thrown to the tender mercies of the architectural jungle is a mystery that the Woods and Forests authority, happily, is no longer present to explain. Even the block of which Mr. Verity's design now forms part was not finished by his hand.

French reasonableness marks everything that Mr. Verity did, although the style of his most frequent choice was not French but Italian. In the year 1889 he won the Tite prize with his design for a theatre in the Venetian style of the sixteenth century, and never did a student win that prize with a design more prophetic of what he was afterwards to execute in practice. The interiors of his Imperial Theatre (now pulled down) and of his Scala Theatre link this prize design naturally with his comparatively recent cinemas, the Plaza and the Carlton. All are Italian and all architecturally are most successful.

It is reasonable to hold that for a modern commercial theatre, and, still more, for a modern commercial cinema, rich Italian architecture is inappropriate. Too much stylishness makes an unkind frame for a scene or a picture that will most often have no stylishness at all. If we decide, as we may, that the Plaza and the Carlton are buildings of a sort we do not now desire for film display, it will be a providential let-off for the increasing number of architects unable to handle any forms but the most elementary, but it also, I think, will be wise. Yet Mr. Verity's more sumptuous cinemas are examples of such high architectural accomplishment that anyone is to be pitied who cannot enjoy them for their own sake. In designing them he did what he never failed to do—he dignified the requirements of his employers by the art he expended in supplying them.

I think it probable that if he had tried his hand at the simplified architecture now in vogue he would have given it a distinction it has not yet secured. His was the masterly ease in designing certain things that shows its possessor to be capable of designing anything. The stylism of his work is but a superficial quality, whereas its excellence lies deep in the fundaments of architecture. He could plan sensibly and beautifully, he could combine masses harmoniously, he could decorate them consistently and gracefully, and in a complex design he could give its due proportion to every detail, even the smallest.

These abilities ought, no doubt, to be commoner than they are, seeing that they are obviously desirable and that by study and training they can be acquired. Very few people, however, acquire them, and those who do are rewarded with but little public praise. An architect who designs within accepted conventions as skilfully as Mr. Verity designed does so only from love of his art. The same sort of designing with the art left out would be just as well received by the world at large. But other architects can recognise the art and pay it their tribute of praise. Work of the quality of Mr. Verity's is the fruit of a civilisation in which intellect and experience were held in high honour. They are not always so held to-day. Those who dread the decay of culture with which Europe seems to be threatened must be jealous for the fame of all art in which the values are purely artistic. Such art was Mr. Verity's, not very progressive, perhaps, but elegant, accomplished and mature. That its activity should be over is a heavy loss to English architecture.

W. E. VERNON CROMPTON [*F.*]

William Edward Vernon Crompton (Ashpitel Prizeman), who died on 24 July, was born in Cumberland and there is no doubt was influenced by those surroundings amongst which he spent his early days, the majesty and serenity of the hills, their beauty of outline and the sense of hidden strength they irradiate influenced his mind all his life, gave him that urge to overcome difficulties, to foresee the trend of events, to appreciate and to know that the practical and scientific solution of a problem would give a true realisation which would satisfy the æsthetic values.

He was educated at Mill Hill School, and after serving his articles in Lancashire, he began practice in Southport, but close on forty years ago he became a partner in the well-known firm of Messrs. Lander, Bedells & Crompton, and one of the highest tributes which can be paid him is that of Mr. C. H. Bedells, P.P.S.I., who says "the whole of our association for close on forty years was of the happiest—in fact a partnership of unbroken friendship."

Vernon Crompton, whilst being a man of character, had a personality which inspired affection as well as respect.

He was responsible more particularly for the architectural practice of the firm and his work was marked by a scholarly rendering, combined with personality in execution, and a meticulous care of detail—some only are mentioned, as the Foreign Flower Market, Covent Garden, for His Grace the Duke of Bedford, various Banking Premises for Barclays Bank Limited, Dilke House, Malet Street, for the National Amalgamated Union of Shop Assistants, and numerous private houses in the Home Counties and at Southport, amongst which were Langley House, Oxshott, for Ernest Humbert, Esq., Links View, Highgate, for Graham Simpson, Esq., Chimney Corner, Walton-on-the-Hill, for F. Crawford-Smith, Esq., Beau Sejour, Ealing, for Victor Myer, Esq., alterations and extensions to Ivy House, Highclere, Newbury, for Captain Sweeton, Forest Lodge, Binfield, for J. H. Fox, Esq., and Crompton Manor, Hants, for G. Hennessey, Esq.

Quite apart from his own work, Vernon Crompton was a pioneer amongst many who devote a great deal of time and render much service to the architectural profession and the R.I.B.A. A record of some of these services is set out and it has to be remembered that membership of committees involves a great deal of labour and time quite apart from attendance.

He was a member of the Science Standing Committee for twenty-one years, serving from 1912 to 1937 with the necessary breaks. During that period he was twice Vice-Chairman, January 1916 to June 1917 and July 1922 to June 1923, and twice Chairman, July 1917 to June 1919 and from July 1923 to June 1925; during the periods of tenure of office of both Vice-Chairman and Chairman investigations into many architectural problems were began and the foundations laid for other authorities to undertake the scientific investigation of these problems which is now accepted as part of the normal procedure in our professional activities.

In those earlier years the outlook was nothing like as clear as it is to-day and it is owing to the devoted services of members such as Vernon Crompton that so much has been accomplished; it is recognised that he was not alone in these activities of the R.I.B.A. and he would have been one of the first to pay tribute to and acknowledge the co-operation of others, as F. R. Farrow, A. O. Collard, H. D. Searles-Wood, and Alan E. Munby.

Certain of the problems under investigation were the effects of earthquakes on different classes of buildings, architectural acoustics, the measurement of street sounds, preservation of stone buildings, regulations as to industrial paints, regulations governing the erection of buildings, disease in timber, defects in roofing tiles and research work generally in the building industry.

In 1916, Vernon Crompton was an original member of the sub-committee who, on behalf of the R.I.B.A., interviewed the Advisory Research Council appointed by the Privy Council Committee for Scientific and Industrial Research, and in October 1917 he drew the attention of the Science Standing Committee to the necessity for the formation of some authority with adequate means to undertake this necessary and essential research work in the current problems of building.

He worked hard during the next two years on these lines so that in 1919 the President and Council of the R.I.B.A. petitioned the Privy Council on the urgent need for permanent and organised investigation into materials used in the building industry: the result of this appeal was the formation of the Building Research Board, under Dr. Weller.

Apart from his services on the Science Standing Committee he was a member of various sub-committees, an examiner for the University of London, and a representative of the R.I.B.A. on the Building Divisional Council and several technical committees of the British Standards Institution, taking much care in the drafting of many of the specifications dealing with building materials.

He had a true sense of literature and was one of the members who made the fullest and best use of the library, was always helpfully critical, full of suggestions for minor improvements and sympathetic with the inevitable difficulties of running a library. It was largely owing to his initiative that the recent campaign of binding the early works was started, and he gave a great deal of his time to investigations into the scientific problems of durability of binding, etc.

Keenly interested in music, he was a vice-president of the Southport Orchestral Society.

Above all, he was one eternally young in thought, never discouraged in the investigation of any subject coming under discussion, and I remember always when summing up any problem before the Committee his remark, "Why cannot further work be undertaken?" and the challenge, always courteous, with which the interrogation was made.

There is no doubt Vernon Crompton was a gallant knight in his journey through life and in his profession, his beliefs based on a strong foundation and his outlook wide, like the hills where he spent his early life, and as we mourn his loss so our sympathy is extended to his widow, Mrs. Fanny Crompton.

J. Ernest Franck [*F.*]

ROBERT WILLIAM CABLE [*F.*]

The late Professor Cable, whose sudden death we all deplore, was born in 1887. He was educated at Dulwich College, and received his early architectural training first at the Architectural Association School in London, and then as articled pupil of Mr. C. E. Mallows [*F.*]. In 1910 he joined the atelier of M. Eugene Chifflot in Paris, and attended L'Ecole Nationale des Beaux Arts there from 1911 to 1912, and, later, taught in the Architectural Association School in London.

In 1914 he was appointed Professor of Architecture at the Government School of Art, Bombay, but in 1916 he volunteered and saw war service in Mesopotamia. He resumed his duties at the School in April 1919, and two years later was appointed on the Advisory Committee of the Bombay City Improvement Trust, subsequently, in 1923, he was relieved from his duties at the School so as to allow him to take up the full-time appointment of Trust Architect. Soon after, he returned to help his father in his practice in London.

The period from 1914 to 1923 in Bombay, though it was interrupted by a break of three years' war service, was of great consequence to architectural education in India, in fact, its influence affected the whole of the architectural profession, not only the City and Presidency of Bombay, but the whole of India, and even Burma and Ceylon shared indirectly in his contribution to the art.

Early morning classes in architecture had been going on for many years before Professor Cable's arrival, but their object was only to train draughtsmen for the offices of the consulting architect and private practitioners in Bombay. The late George Wittet, the Consulting Architect to the Government of Bombay, who was responsible for the organisation of these classes, soon realised the need for the establishment of a proper Architectural School in India, and was thus instrumental in bringing Mr. Cable out to India. Professor Cable set himself to reorganise these classes, and gradually transformed them into a school, where men were trained not merely as draughtsmen, but were encouraged to aspire to become architects themselves, or, at least, to qualify themselves for posts as assistants, not only in governmental and private offices, but also in the Archæological Department of the Government of India, where more than one has left his mark on the more architectural side of that department. He represented the Advisory Board of Architectural Education of the R.I.B.A. in India, and, in 1923, the school he had fostered obtained its recognition, and, due to his efforts, those holding the Government of Bombay Diploma in Architecture were, under certain conditions, granted the licence to practise as architects in the Bombay City area, a privilege up till then practically restricted to the successful students of the engineering colleges. To-day students who passed through his hands are either practising or holding responsible architectural appointments throughout India, Burma and Ceylon.

Professor Cable's actual practice in Bombay was limited, but he certainly leaves a living monument in the work of his students of the Architectural Section of the Bombay School of Art, who have been responsible for most of the more scholarly buildings that have been erected in Bombay during the last decade.

Within the three years that he was at the City Improvement Trust he brought about a marked improvement in its organisation, especially in regard to the employment only of architecturally trained practitioners for the design of buildings erected on its leasehold plots.

Professor Cable's influence on the architecture of India has been altogether disproportionate to the short period during which it was exerted, and that fact is only to be explained by his winning personality and the intimate friendship which he so readily gave to his Indian students, and which found so real a response from them. These friendships did not cease with the close of their school career; he helped them in building up their own practices, or guarded their interests as they took up one appointment after another as a result of his recommendation and influence.

Even after he went to England, he continued his interest in the school he so loved, and also in the Indian Institute of Architects, which he was instrumental in founding, and gaining its alliance with the R.I.B.A. Right up to the time of his death he was our representative and advocate in London in connection with every matter which concerned the welfare of either the School or the Institute. We, therefore, feel that we share to no small extent the bereavement that has overwhelmed his wife and family, and it will be extraordinarily difficult for us to know where to look for his successor.

To those more general remarks, perhaps I may be permitted to add a personal note. From his arrival in Bombay, we became fast friends, and in the school, on many pleasant excursions to various centres of architectural interest, as well as in our relaxations, some of the happiest hours of my life were spent in his company.

After his return to England, our reunions were the red-letter days of my "Home leave," and he was the first to whom I looked for help and advice in attempting to sustain the standard that he had set, and to bring to fruition the seed that he had so carefully sown and tended.

Claude Batley [*A.*]

W. S. SKINNER [*Ret. F.*]

We regret to record the death at the age of 84 of Mr. Willie Swinton Skinner, senior member of the firm of Messrs. W. S. Skinner and Sons, of Bristol.

Mr. Skinner was the son of a Lincolnshire farmer, and was born in Ohio, U.S.A., in 1853. After the return of his family to England, he worked first as an art master and was articled to a Lincoln firm of architects. In 1878 he was appointed

assistant architect to the Bristol Sanitary Authority, a position which he held for twenty years.

During his service with the Bristol Corporation, Mr. Skinner was responsible for many important architectural developments, including alterations to the Council House, alterations to St. Peter's Hospital board room, Barton Hill baths, Winsley sanatorium, schools at Kingsdown, Baptist Mills and Cotham, and Bristol Docks, Southmead Hospital, Eastville Institution, and more recently, Hortham Colony.

After leaving the Council's service, Mr. Skinner became associated with Sir George Oatley [*F.*], then Mr. Oatley, in national competition work in connection with the designing of asylums, and their joint efforts were successful in securing many important commissions, including institutions at Winwick (Lancs), Croydon, and Cardiff.

Mr. Skinner was in practice on his own account until 1918, when he was joined by his two sons—Mr. T. A. Skinner and Mr. C. G. Skinner [*AA.*]—to form the present firm. He retired in 1931, and is succeeded by his sons.

Mr. Skinner was President of the Bristol Society of Architects in 1924, and was an Allied Societies Representative on the Council from 1925 to 1929.

THE DEAN OF WESTMINSTER [*Hon. A.*]

The death of the Very Rev. William Foxley Norris has deprived architecture of an enthusiastic friend whose positions of authority successively at York and Westminster gave him many opportunities, which he was quick to take, to exercise his talents as an administrator by beautifying and improving the state of the buildings in his care. In most of his architectural schemes he worked in close collaboration with his friend Sir Walter Tapper, who was architect to York Minster during Dr. Foxley Norris's time as Dean of York and who was appointed surveyor to Westminster Abbey on Lethaby's death shortly after Dr. Foxley Norris had come south. Dr. Foxley Norris combined with his keen sense of architectural values a deep-seated sense of the religious value of good architecture properly used to enhance the dignity of ritual and the life of church people. Both at York and Westminster this was evident, although the ideal he set himself did not by any means always prove easy of attainment or generally acceptable to others who viewed things with a slightly different eye, however much they may have shared his desire to make the buildings which he served real lively elements in worship. Some of his contests over, for instance, the addition of the sacristy to Westminster Abbey in which he stoutly, though unsuccessfully, defended Sir Walter Tapper's designs and the general principles of the scheme against the arguments of an *ad hoc* preservation committee, and the proposals which he made for removing some of the less "spiritual" monuments excited such opposition that they have become *causes célèbres* in the history of the Abbey. But though these events must always stand in the background to dominate in some people's view his tenure of the deanery, there can be little doubt that this period will be regarded in the future as one in which there was stimulated by his energies a great public interest in the Abbey and as one in which many most valuable works were initiated and carried through. With Professor Tristram he carried on the restoration—or, rather, careful preservation—of mediæval monuments which Lethaby had started, he took the lead due to his high position in restoring Henry VII's Chapel and initiated the improvements in the library and muniment room and in clearing the east side of Little Dean's Yard.

Dr. Foxley Norris became an Honorary Associate of the R.I.B.A. during Walter Tapper's presidency and was a frequent visitor to Institute meetings, at which he often spoke with characteristic and rather pontifical humour. He was honorary chaplain to the Royal Academy and an exhibitor of water-colours in the R.A. Summer Exhibitions, a member of the Advisory Council of the Victoria and Albert Museum and chairman of the Central Council for the Care of Churches.

ROBERT ARDLEY

Robert Ardley, who died at his home, 15 Westland Avenue, West Worthing, on 28 September, at the age of 81, entered the office of the late Alfred Waterhouse, R.A., P.R.I.B.A., in May 1872. He remained in this office for the whole of his working life, a period of 57 years, serving with untiring faithfulness the three generations. For the first eight years, 1872-80, he was occupied mainly as a draughtsman. In September 1880 he took over the duties of the then manager, Mr. John Willey, whose health had broken down, and he continued in this capacity for the whole of the remainder of his working life, during the lifetime of Paul Waterhouse, P.R.I.B.A., and for the present generation Michael Waterhouse [*F.*]. To the three generations he was very much more than the ordinary business manager of an architect's office in that he was the trusted and confidential secretary in all their private and personal affairs as well as in office matters.

The conclusion of fifty years' service in the office in May 1922 was celebrated by an informal dinner and presentation by Mr. Paul Waterhouse, and an account of this was published in the R.I.B.A. JOURNAL of that date. Early in 1931 his health broke down, but he continued to work from his London home at the books of the office until the completion of that year, when he retired to Worthing, where he resided until his death.

Robert Ardley's cheerfulness and warmth of spirit, his unfailing energy, his loyalty and devotion to the interests of the family and the profession, were apparent to everyone who during those 57 years had any dealings with the office. He was known to, and counted as a friend by, many architects and a still wider circle of acquaintances in the building trade, but by none was he held in greater affection and esteem than by the members of the family whom he served so faithfully.

E. W. MARSHALL [*F.*]

We regret to record the sudden death while on a holiday in Germany of Mr. Ernest William Marshall.

Mr. Marshall, who was born in 1868, was articled to Alfred Waterhouse, and practised in London, where he built the East End Maternity Hospital in Commercial Road. He also built a number of country houses.

Notes

SOCIAL ACTIVITIES AT THE R.I.B.A.

The Social Committee have decided to publish annually in the JOURNAL the names of the committees of the various social groups. The names of the members of the Social Committee are, of course, printed in the Kalendar.

Full particulars of the activities of the groups may be obtained on application to the Hon. Secretary of each group at the R.I.B.A.

A card containing the dates of social events in the current session may be obtained on application to the Secretary R.I.B.A.

The Committees of the groups are as follows :—

(1) *Camera Club.*—Mr. F. R. Yerbury (chairman), Mr. Eric Jarrett (hon. treasurer), Mr. Harman A. Bowen (hon. portfolio secretary), Mr. A. L. Hall, Mr. Bryan P. Westwood, Mr. Denis Winston, Miss Alma J. Dicker (hon. secretary).

(2) *Dance Club.*—Mr. H. Chalton Bradshaw (chairman), Mrs. A. B. Knapp-Fisher, Lady MacAlister, Mr. John Mackay, Mrs. J. Alan Slater, Mr. L. H. B. Roberts (hon. secretary), Mr. R. W. H. Robertson (clerk to the Committee).

(3) *Dramatic Society.*—Mr. Alan B. Stamford (chairman), Miss Alma J. Dicker (hon. treasurer), Miss E. Caldicott, Mr. Gilbert F. Kendrew, Mr. F. Halliburton Smith, Miss Elma A. J. Thomas, Miss G. W. M. Leverkus (hon. secretary).

(4) *Music Club.*—Mrs. H. V. Lanchester (chairman), Mr. Patrick Wilson (hon. treasurer), Mrs. Patrick Abercrombie, Mr. Ailwyn Best, Mrs. H. Chalton Bradshaw, Mrs. E. J. Carter, Mr. F. E. Tudor, Miss Alice Ashley (hon. secretary).

The following are some of the arrangements :—

R.I.B.A. DRAMATIC SOCIETY

The R.I.B.A. Dramatic Society will produce "The Immortal Lady," by Clifford Bax, on the evenings of 11, 12 and 13 November. The Secretary, Miss Gertrude Leverkus, 5 Gower Street, W.C.1, will be very pleased to hear from any member anxious to take part in this production, as there are still several male parts uncast. Rehearsals begin in October on Monday and Friday evenings. Full details of the production will be announced later.

MUSIC GROUP

The R.I.B.A. Music Group has arranged a concert which will take place on Monday, 6 December. The singer will be Miss Joyce Buckley, soprano.

Dr. Malcolm Sargent is to take the chair at a meeting of the Opera Circle which will take place at the R.I.B.A. on Sunday, 7 November, at 8.30 p.m., under the auspices of the R.I.B.A. Music Group.

A talk and concert will be given on "Comic Opera in Beethoven's Time." Musical illustrations, under the direction of Georg Knepler, will be given by Betty Bannerman, Donald Campbell, Nora Colton, Ernest Frank, Howard Hemming, Vere Laurie, Charles Schloss, Eugenia Triguez, and Sophie Wyss.

The director is Ernst Schoen and the Group gave a concert at the R.I.B.A. a year or two ago.

Guests' tickets can be had for 5s. from Mrs. Lanchester, 19 Bedford Square, W.C.1, telephone Museum 3369. *They must be purchased beforehand as no tickets can be taken at the door.*

R.I.B.A. DANCE CLUB

The dance club has arranged four dances for the 1937-38 session : 5 November, 17 December, 4 February and 22 April. Members and Students of the R.I.B.A., their wives and families, are eligible for membership of the club, which entitles them to membership tickets at the price of £1 15s. for a *double* ticket for the series. *Single* tickets are 6s. for each dance. The usual regulations about application and so on still hold : not more than ten tickets will be issued to any one person ; members will make their own arrangements for alcoholic refreshment ; applications for tickets must be received by Mr. R. W. H. Robertson, Clerk to the Dance Club, at the R.I.B.A. at least four days beforehand ; they must be accompanied by cheques or postal orders or they will not be accepted or acknowledged ; and they must not be sent by telephone.

INSTRUMENTS WANTED

An appeal has lately been circulated inviting all interested in the study of ancient and medieval buildings to co-operate with the Government of Cyprus in equipping the recently established Antiquities Department with the surveying and drawing instruments required for a full survey of the island's historic monuments. The following are most urgently required : sets of drawing instruments with spring-bow compasses ; plane table with telescopic alidade ; prismatic compasses ; theodolite or engineer's transit level.

Members who have any of the above instruments at their disposal and would be willing to assist in this valuable work by presenting or lending them to the Department are asked to communicate with the Secretary R.I.B.A. stating what instruments they have available.

PUBLIC WORKS, ROADS AND TRANSPORT CONGRESS

Mr. H. S. Goodhart-Rendel, as President of the Institute has accepted an invitation to be a vice-president of the ninth Public Works, Roads and Transport Congress, which is to be held at the Royal Agricultural Hall, London, from 15 to 20 November next. The congress have offered to members of the Institute a limited number of tickets of admission to the congress and exhibition. Application for these should be made to the Secretary at the R.I.B.A.

FINAL EXAMINATION

Alternative Problems in Design

The programmes for the Final Examination Problems in Design 1938 have now been issued by the R.I.B.A. Board of Architectural Education. The six subjects, with the dates by which they must be submitted, are as follows :—

A Block of Family Flats. (28 February 1938.)
Two Concert Halls. (29 April 1938.)
A Public Library. (30 June 1938.)
A Works Canteen. (31 August 1938.)
A Dental School. (30 October, 1938.)
A Housing Scheme. (30 December 1938.)

Candidates are required to include in the four testimonies of study for which they must secure approval before being admitted to the examination at least one constructional subject (working drawings of an approved design).

A set of approved Final Examination testimonies has been deposited in the R.I.B.A. Reference Library for the information and guidance of students.

The official form of entry and all other particulars, including the programmes, may be obtained on application to the R.I.B.A.

INTERMEDIATE EXAMINATION

The following are the dates on which the forthcoming R.I.B.A. Intermediate Examination will be held :—

12, 13, 15, 16 and 18 November 1937.

(Last day for receiving applications : 12 October 1937.)

INCORPORATED CLERKS OF WORKS ASSOCIATION OF GREAT BRITAIN

Examination, 1937

An examination for Clerks of Works was held at the Carpenters' Hall on 7, 8, and 10 July 1937.

The following is a list of successful candidates in order of merit :

Part I (Preliminary) :

Sidwell, N. C., Corley, Coventry.
Murgatroyd, T., Marston, Bedford.
Kingham, A. H., Headington, Oxford.
Lloyd, J., Cadishead, Manchester.
Crafter, W. E., West Ewell, Surrey.
Nodleman, S. J., Streatham, London.
Stabler, D., Thornaby-on-Tees, Yorks.
Sharples, H., Ulverston, Lancs.
Harvey, W. H., Alkham, Dover, Kent.
MacBride, H., Glengarnock, Scotland.
Young, W. B., Welling, Kent.

Part II (Final) :

Tunnicliffe, F., Derby.
Harmer, R., Norbury, London.
Lockwood, H., Ribbleton, Lancs.
Edwards, R. V., Bayswater, London.

CORRECTION

In the Journal for 11 September 1937 it was stated in the note on the President's engagements on p. 980 that Mr. S. Port had represented Mr. Percy Thomas at a public function. This should have been Mr. S. Pool [*A.*].

Notices

THE INAUGURAL GENERAL MEETING MONDAY, 1 NOVEMBER 1937, AT 8.30 P.M.

The Inaugural General Meeting of the Session 1937-1938 will be held on Monday, 1 November 1937, at 8.30 p.m. for the following purposes :—

To read the Minutes of the Twelfth General Meeting of the Session 1936-1937 held on 21 June 1937 ;

Mr. H. S. Goodhart-Rendel, President, to deliver the Inaugural Address of the Session ;

To present the London Architecture Bronze Medal 1936 to Messrs. Stanley Hall & Easton and Robertson [*FF.*] for their building, The Nurses' House, Hospital for Sick Children, Great Ormond Street, W.C.1.

The President to unveil the portrait of Mr. Percy E. Thomas, O.B.E., Hon.LL.D., Past-President, painted by Mr. Harold Knight, R.A.

Evening dress optional.

EXHIBITIONS OF DESIGNS OF STUDENTS EXEMPTED FROM THE R.I.B.A. INTERMEDIATE AND FINAL EXAMINATIONS

The designs of students of Schools of Architecture recognised for exemption from the R.I.B.A. Final Examination will be exhibited at the R.I.B.A. from 16 to 19 October 1937, inclusive, between the hours of 10 a.m. and 8 p.m., Saturday 10 a.m. and 5 p.m. The R.I.B.A. Silver Medal for Recognised Schools of Architecture, and £5 in books, is awarded for the best set of drawings submitted.

The designs of students of Schools of Architecture recognised for exemption from the R.I.B.A. Intermediate Examination will be exhibited at the R.I.B.A. from 26 to 29 October 1937, inclusive, between the hours of 10 a.m. and 8 p.m. The R.I.B.A. Bronze Medal for Recognised Schools of Architecture, and £5 in books, is awarded for the best set of drawings submitted.

An exhibition of the drawings submitted in competition for the R.I.B.A. Prize (£5 in books) for Art Schools and Technical Institutions with Facilities for the Instruction of intending Architects will be held with the Exhibition of Designs of Students of Schools of Architecture recognised for exemption from the R.I.B.A. Intermediate Examination.

EXHIBITION OF MODERN SCHOOLS : 12-19 OCTOBER, 1937

The Exhibition of Modern Schools will remain open in the Reception Room at the Institute on Monday, 18, and Tuesday, 19 October between the hours of 10 a.m. and 8 p.m.

ANNUAL SUBSCRIPTIONS

Members' subscriptions, Students' and Subscribers' contributions became due on 1 January 1937.

The amounts are as follows :—

Fellows	£5	5	0
Associates	£3	3	0
Licentiates	£3	3	0
Students	£1	1	0
Subscribers	£1	1	0

NOTE.—By a resolution of the Council dated 20 July 1931 the subscriptions of R.I.B.A. members in the transoceanic Dominions who are also members of Allied Societies in those Dominions are reduced to the following amounts as from 1 January 1932 :—

Fellows	£3	3	0
Associates	£2	2	0
Licentiates	£2	2	0

COMPOSITION OF SUBSCRIPTIONS FOR LIFE MEMBERSHIP

Fellows, Associates and Licentiates of the Royal Institute may become Life Members by compounding their respective annual subscriptions on the following basis :—

For a Fellow by a payment of £73 10s. (70 guineas).

For an Associate or Licentiate by a payment of £44 2s. (42 guineas), with a further payment of £29 8s. (28 guineas) on being admitted as a Fellow.

In the case of members in the transoceanic Dominions who are members of Allied Societies in those Dominions, the following basis will operate :—

For a Fellow by a payment of £52 10s. (50 guineas).

For an Associate or Licentiate by a payment of £31 10s. (30 guineas), with a further payment of £21 (20 guineas) on being admitted as a Fellow.

Provided always that in the case of a Fellow or Associate the above compositions are to be reduced by £1 1s. per annum for every completed year of membership of the Royal Institute after the first five years, and in the case of a Licentiate by £1 1s. per annum for every completed year of membership of the Royal Institute, with a minimum composition of £6 6s. in the case of Fellows and £4 4s. in the case of Associates and Licentiates.

CLASSES OF RETIRED MEMBERS

Under the provisions of Bye-law No. 15 applications may be received from those members who are eligible for transfer to the class of "Retired Fellows," "Retired Associates," or "Retired Licentiates."

The Bye-law is as follows :—

"Any Fellow, Associate or Licentiate who has reached the age of fifty-five and has retired from practice may, subject to the approval of the Council, be transferred without election to the class of 'Retired Fellows,' 'Retired Associates' or 'Retired Licentiates,' as the case may be, but in such case his interest in, or claim against the property of, the Royal Institute shall cease. The amount of the annual subscription payable by such 'Retired Fellow,' 'Retired Associate' or 'Retired Licentiate' shall be £1 1s. 0d., or such amount as may be determined by resolution of the Council, excepting in the case of those who have paid subscriptions as full members for thirty years, and who shall be exempt from further payment. A 'Retired Fellow,' 'Retired Associate,' or 'Retired Licentiate' shall have the right to use the affix of his class with the word 'Retired' after it, shall be entitled to receive the JOURNAL and *Kalendar*, shall be entitled to the use of the Library, and shall have the right to attend General Meetings, but shall not be entitled to vote. A 'Retired Fellow,' 'Retired Associate' or 'Retired Licentiate' shall not engage in any avocation which in the opinion of the Council is inconsistent with that of architecture. Nothing contained in this Bye-law shall affect the rights of persons who at the date of the passing of this Bye-law are members of the classes of 'Retired Fellows' and 'Retired Members of the Society of Architects.'"

THE RECEPTION OF NEW MEMBERS AT GENERAL MEETINGS

It has been decided by the Council to modify the procedure for the introduction and reception of new members at General Meetings. In future new members will be asked to notify the Secretary beforehand of the date of the General Meeting at which they desire to be introduced and a printed postcard will be sent to each newly elected member for this purpose. They will be asked to take their seats on arrival in a special row of seats reserved and marked for them. At the beginning of the meeting on the invitation being given to present themselves for formal admission each new member will be led up to the Chairman by one supporter, and the Chairman will formally admit them to membership.

The introduction and reception of new members will take place at any of the forthcoming Ordinary General Meetings of the Royal Institute with the *exception of the meetings on the following dates* :—

1 November 1937 (Inaugural General Meeting).

24 January 1938 (Presentation of Medals and Prizes).

4 April 1938 (Presentation of the Royal Gold Medal).

THE R.I.B.A. REGISTER OF ASSISTANTS SEEKING ENGAGEMENTS

Members and Students of the R.I.B.A. and the Allied and Associated Societies are reminded that a Register of Assistants seeking engagements is kept at the offices of the Royal Institute.

An assistant seeking employment should obtain from the Secretary R.I.B.A. the necessary form (to be filled up in duplicate) on which particulars must be given as to the applicant's age, qualifications, salary required, references, etc.

The application will hold good for one month from the date of receipt, after which it must be renewed on a fresh form unless the applicant has meanwhile obtained employment.

Architects, whether members of the R.I.B.A. or not, will be furnished on application with the names and addresses of persons desiring employment as assistants, improvers or clerks of works as the case may be. Architects applying for assistants should give the following particulars of their requirements : (1) whether temporary or permanent engagement ; (2) junior or senior assistants ; (3) particulars of duties and style of work ; (4) salary offered.

ASSOCIATES AND THE FELLOWSHIP

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 10 January 1938 they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 13 November 1937.

LICENTIATES AND THE FELLOWSHIP

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (*b*) and (*cii*), of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

OVERSEAS APPOINTMENTS

When members are contemplating applying for appointments overseas they are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

R.I.B.A. ANNUAL DINNER 1938

The Annual Dinner will take place on Friday, 11 February 1938. Full particulars will be issued to members in due course.

Competitions

The Council and Competitions Committee wish to remind members and members of Allied Societies that it is their duty to refuse to take part in competitions unless the conditions are in conformity with the R.I.B.A. Regulations for the Conduct of Architectural Competitions and have been approved by the Institute.

While, in the case of small limited private competitions, modifications of the R.I.B.A. Regulations may be approved, it is the duty of members who are asked to take part in a limited competition to notify the Secretary of the R.I.B.A. immediately, submitting particulars of the competition. This requirement now forms part of the Code of Professional Practice in which it is ruled that a formal invitation to two or more architects to prepare designs in competition for the same project is deemed a limited competition.

PROPOSED COMPETITION FOR ALTERATIONS AND IMPROVEMENTS TO EBBW VALE CONSERVATIVE CLUB PREMISES

The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

DAILY MAIL IDEAL HOME EXHIBITION 1938: COMPETITION FOR A GLASS HOUSE

Architects and architectural students of British nationality are invited to submit in competition designs for a Glass House to form a central feature of the Ideal Home Exhibition 1938. The competition is being organised in conjunction with the British glass industry and is being conducted on behalf of the *Daily Mail* by the Board of the Building Centre.

Assessors: Mr. L. H. Bucknell [*F.*].
Mr. J. Murray Easton [*F.*].
Mr. Maurice E. Webb, D.S.O., M.C. [*F.*].
Mr. G. Grey Wornum [*F.*].

Premiums: £100, £50 and £25.

Last day for sending in designs: 30 November 1937.

Conditions of the competition may be obtained on application to "Glass House," *Daily Mail* Ideal Home Exhibition, New Carmelite House, London, E.C.4, *or* Mr. F. R. Yerbury, Director of the Building Centre, 158 New Bond Street, London, W.1.

KEIGHLEY: NEW SENIOR MIXED SCHOOL

The Keighley Education Authority invite architects to submit, in competition, designs for a New Senior Mixed School, proposed to be erected on the Guard House Site, Keighley, Yorkshire.

Assessor: Mr. Harold A. Dod, M.A. [*F.*].

Premiums: 150 guineas, 100 guineas, 50 guineas.

Last day for submitting designs: 22 December 1937.

Last day for questions: 4 September 1937.

Conditions of the competition may be obtained on application to Mr. E. Ratcliffe, Director of Education, Education Office, Keighley, Yorks. Deposit £2 2s.

ROYAL NATIONAL EISTEDDFOD OF WALES, CARDIFF, 1938: ARCHITECTURAL COMPETITIONS

The Royal National Eisteddfod of Wales are promoting the following two competitions:

(1) For a design for a scheme comprising Physical Culture Centre and Baths. Premiums: £60, £30 and £20.

(2) For a design for a Group of Twelve Dwellings for Aged People. Premiums: £30 and £20.

The Assessor for the competitions is Mr. Percy E. Thomas, O.B.E., Hon. LL.D., Past-President R.I.B.A.

Particulars of the competitions may be obtained on application to The General Secretary, Royal National Eisteddfod of Wales, 11 Park Place, Cardiff.

ST. GEORGE'S HOSPITAL: RECONSTRUCTION

The President, Vice-President, Treasurer and Governors of St. George's Hospital invite architects practising in the United Kingdom and Northern Ireland to submit in competition designs for the reconstruction of St. George's Hospital, Hyde Park Corner.

Assessors: Dr. H. V. Lanchester [*F.*].
Mr. T. A. Lodge [*F.*].

Premiums: £500, £300 and £200.

Owing to an unavoidable delay in the issuing of the conditions, the last dates for the submission of designs and questions will be extended, in order that the same period for the preparation of designs will be available as was originally intended.

Conditions of the competition will be obtainable shortly on application to The House Governor, St. George's Hospital, Hyde Park Corner, London, S.W.1. Deposit £2 2s.

SCUNTHORPE: MUNICIPAL AND POLICE BUILDINGS

The Borough Council of Scunthorpe and the County Council of Lincoln, Parts of Lindsey, invite architects of British nationality to submit in competition designs for Municipal Buildings, Courts and Police Buildings to be erected on a site between High Street and Station Road, Scunthorpe.

Assessor: Mr. T. C. Howitt, D.S.O. [*F.*].

Premiums: £500, £250 and £150.

Last day for submitting designs: 19 November 1937.

Last day for questions: 10 September 1937.

Conditions of the competition may be obtained on application to Mr. J. F. Auld, Town Clerk, Scunthorpe. Deposit £2 2s

FORTHCOMING COMPETITIONS

Other competitions which it is proposed to hold, and the conditions for which are not yet available, are as follows :—

BILLERICAY: NEW COUNCIL OFFICES

The Billericay Urban District Council have decided to postpone this competition for three or four years.

BRIERLEY HILL, STAFFS.: NEW MUNICIPAL BUILDINGS

Assessor: Mr. Verner O. Rees [*F.*].

CHESTER: EXTENSIONS TO CHESTER ROYAL INFIRMARY

Assessor: Mr. Arthur J. Hope [*F.*].

DUNDEE: COLLEGE OF ART

Assessor: Mr. J. R. Leathart [*F.*].

EDMONTON: NEW TOWN HALL BUILDINGS

Assessor: Mr. E. Berry Webber [*A.*].

GLOUCESTER: NEW SWIMMING BATH AND FIRE STATION

Assessor: Mr. C. F. W. Dening, R.W.A. [*F.*]

PRESTWICH: NEW MUNICIPAL BUILDINGS

Assessor: Mr. T. C. Howitt, D.S.O. [*F.*]

REDCAR: DEVELOPMENT OF THE "STRAY"

Assessor: Professor Patrick Abercrombie, Vice-President R.I.B.A.

SOUTH SHIELDS: ASSEMBLY HALL AND LIBRARY

Assessor: Mr. Arthur J. Hope [*F.*].

WOOD GREEN: NEW MUNICIPAL OFFICES AND COURTS

Assessors: Messrs. C. H. James [*F.*] and S. Rowland Pierce [*A.*]

WREXHAM: NEW TOWN HALL

Assessor: Mr. Herbert J. Rowse [*F.*].

YEOVIL: NEW TOWN HALL

Assessor: Mr. C. Cowles-Voysey [*F.*]

COMPETITION RESULTS

BIRMINGHAM BUILDING TRADES EXHIBITION: DESIGN FOR MULTI-STOREY GARAGE

1. Messrs. F. G. Wischhusen [*L.*], R. C. Cornforth, and A. G. Paton [*A.*] (London).
2. Mr. E. Howard Sadler [*A.*] (London).
3. Mr. Richard Anderton [*A.*] (Blackpool).

LIVERPOOL BUILDING TRADES EXHIBITION: SERVICE FLATS AND SOCIAL CLUB

1 and 2. Added and divided between Messrs. K. L. Dod and A. C. Dewey [*Student*] (East Sheen) and Messrs. P. W. MacIver and Roger Walters (Liverpool).

3. Mr. John A. Ashworth [*Student*] (Rochdale).

MEMBERS COLUMN

Owing to limitation of space, notices in this column are restricted to changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and appointments vacant. Members are reminded that a column in the Advertisement Section of the Journal is reserved for the advertisements of members seeking appointments in architects' offices. No charge is made for such insertions and the privilege is confined to members who are definitely unemployed.

NEW PARTNERSHIPS

Mr. Leslie Grahame-Thomson, A.R.S.A. [*F.*], has taken into partnership Mr. Frank J. Connell, M.A.(Cantab.) [*A.*], and henceforth his architectural business will be carried on under the title "Leslie Grahame-Thomson and Connell." The professional address of the firm will remain unaltered.

Messrs. H. V. Ashley & Winton Newman [*FF.*] have taken into partnership Mr. W. Naseby Adams [*A.*], who has been associated with them in the recent competition for the Birmingham Colleges. The name of the firm will remain unchanged, and the address is as heretofore at 14 Gray's Inn Square, London, W.C.1. Mr. Adams has vacated his office at 6 Bryanston Street, London, W.1, and his practice will be continued at the above address.

PARTNER WANTED

London Architect, 30 years' practice London and provinces, leaving England temporarily through ill-health, seeks assistant prepared to take over practice or acquire partnership.—Box 1307, c/o Secretary R.I.B.A.

PARTNERSHIPS WANTED

A.R.I.B.A., A.A.Dipl. (33), capable and well trained, used to senior control of busy, modern London office, desires change with view to immediate or future partnership in progressive office, in London only. Good references. Small capital available. Replies in strictest confidence. Box No. 7937, c/o Secretary R.I.B.A.

A.R.I.B.A., A.A. Diploma (30), requires position as assistant with a view to partnership after two or three years. Capital available. Seven years' practical experience of varied work in London and provincial offices, including domestic, departmental stores, schools, licensed premises and some private work. Position preferred with well-established architect with country practice in South or West of England.—Apply Box No. 2897, c/o Secretary R.I.B.A.

PARTNERSHIP DISSOLUTION

The partnership between Percival C. Blow [*A.*] and A. W. R. Hewitt [*A.*] has been dissolved by mutual consent as from 5 October 1937, and the practice will be continued as heretofore by Percival C. Blow at Bank Chambers, St. Albans.

NEW PRACTICE

Mr. David Ospalak [*L.*] wishes to announce that he is now in practice on his own account at 25 Victoria Street, Westminster, S.W. (Telephone: Vic. 9262).

PRACTICE FOR SALE

Busy West Country general practice for sale. Average income over eleven years £820 per annum. Established 1890. Several large jobs planned. £1,000 premium. Ill-health reason for sale. Box No. 1497, c/o Secretary R.I.B.A.

CHIEF ASSISTANT WANTED

Vacancy exists for chief assistant and drawing office manager in architect's office in Dublin, having busy mixed practice. Good opportunity for keen, practical man. Please give full particulars, salary expected, etc., to Box No. 1597, c/o Secretary R.I.B.A.

ASSISTANTS WANTED

Mr. Percy J. Waldram, F.S.I. [*L.*], has vacancies for additional assistants, mainly on daylight measurements. Neat and accurate draughtsmanship essential. Apply by letter in own handwriting, stating age, particulars of education, experience and salary required, to 9 Gray's Inn Square, W.C.1.

ASSISTANCE OFFERED

ARCHITECT [*F.*] is open to render assistance on jobs or competitions in own office or otherwise. Winner of three competitions and several premiums.—Apply N., 14 Bedford Row, W.C.1.

OFFICE ACCOMMODATION TO LET

ASSOCIATE'S Room in well-known architect's house, close to Portman Square; £50 per annum, including light and cleaning, for 12 months or longer by agreement. Apply Box No. 1797, c/o Secretary R.I.B.A.

TO LET, share of large room in architect's office in Lincoln's Inn Fields. Use of telephone.—Apply Box No. 1107, c/o Secretary R.I.B.A.

THE R.I.B.A. have received notice that there is a ground floor room, with use of clerks' office, to be let in Bedford Row. Apply Box No. 1697, c/o Secretary R.I.B.A.

CHANGES OF ADDRESS

MR. E. LESLIE GALE [*L.*] has changed his address to Moorgate Hall, 153 Moorgate, E.C.2. Telephone: Metropolitan 4671.

MR. WALTER FISK [*A.*] has changed his address to 52 Gwalior House, Chase Road, Southgate, N.14.

MR. ALFRED A. OSPALAK [*L.*] has moved his offices to 25 Victoria Street, S.W.1, telephone No. Victoria 9262

MR. ERIC SMITH [*Student*] has removed to new offices at 8 Bryanston Street, Portman Square, W.1, and would be glad to receive trade catalogues.

CORRECTION IN ADDRESS

THE present office address of Mr. Henry W. Bannan [*L.*] is 47 Bloomsbury Square, W.C.1 (Telephone: Holborn 8327), and *not* 8 Philpot Lane, E.C.3, as printed in the new issue of the R.I.B.A. *Kalendar*.

BOOKS FOR SALE

FOR SALE: a complete series of the volumes of the London Survey Committee.—Apply Box No. 1207, c/o Secretary R.I.B.A.

ARCHITECT'S library for sale, in separate lots or volumes; may be seen in London any time; priced catalogue on application; no books on modern "functional" work.—Apply Box No. 2997, c/o Secretary R.I.B.A.

FOR SALE: large quantity of architectural works, lists supplied. Also large quantity of illustrations for disposal at special terms.—Address, H. D. Pritchett [*F.*], 12 High Row, Darlington.

Architects' and Surveyors' Approved Society

ARCHITECTS' ASSISTANTS' INSURANCE FOR THE NATIONAL HEALTH AND PENSIONS ACTS

Architects' Assistants are advised to apply for the prospectus of the Architects' and Surveyors' Approved Society, which may be obtained from the Secretary of the Society, 113 High Holborn, London. W.C.1.

The Society deals with questions of insurability for the National Health and Pensions Acts (for England) under which, in general, those employed at remuneration not exceeding £250 per annum are compulsorily insurable.

In addition to the usual sickness, disablement and maternity benefits, the Society makes grants towards the cost of dental or optical treatment (including provision of spectacles).

No membership fee is payable beyond the normal Health and Pensions Insurance contribution.

The R.I.B.A. has representatives on the Committee of Management, and insured Assistants joining the Society can rely on prompt and sympathetic settlement of claims.

A.B.S. Insurance Department

THE ARCHITECTS' SPECIAL MOTOR CAR INSURANCE AT LLOYD'S

In conjunction with a firm of Lloyd's Insurance Brokers the Architects' Benevolent Society's Insurance Committee have devised a Special Motor Car Policy for Architects. This policy and the special advantages to be gained from it are available only to members of the Royal Institute of British Architects and its Allied and Associated Societies.

Special features include:—

1. Agreed values for all cars payable at any time in the event of a total loss.

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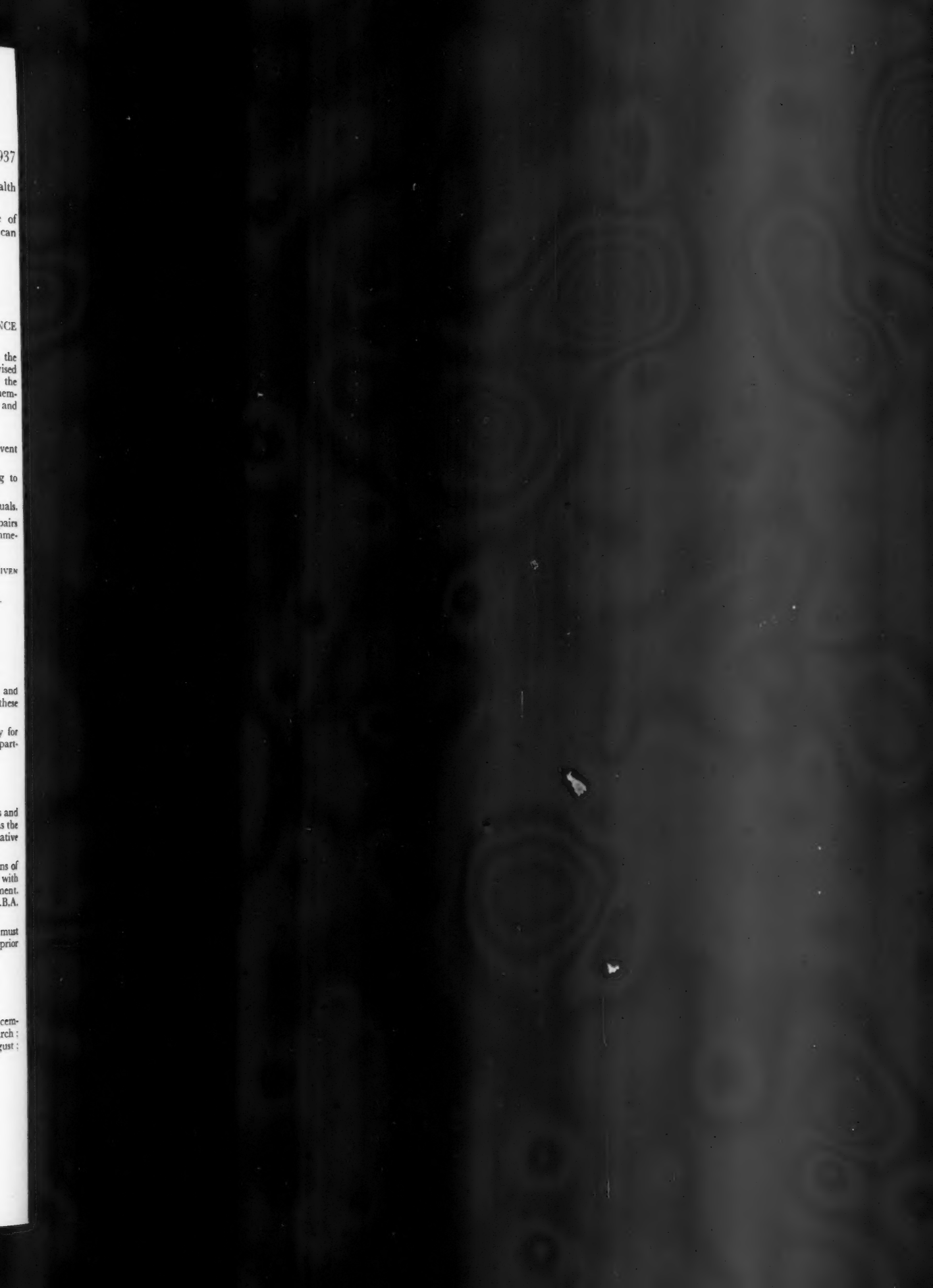
(The rates shown do not apply to cars garaged in London and Glasgow and Lancashire manufacturing towns; rates for these areas will be quoted on application.)

All enquiries with regard to the Special Motor Car Policy for Architects should be sent to the Secretary, A.B.S. Insurance Department, 66 Portland Place, W.1.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expressions of the Institute.

Members sending remittances by postal order for subscriptions of Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A. and crossed.

Members wishing to contribute notices or correspondence must send them addressed to the Editor not later than the Tuesday prior to the date of publication.

R.I.B.A. JOURNAL

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